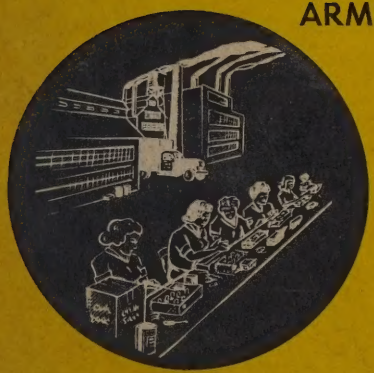
SINCE 1922

ARMED FORCES

RESEARCH



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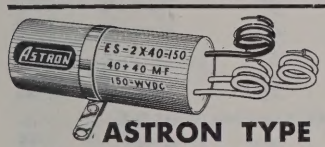
ASTRON TYPE MM

Metal-Cased Electrolytic Tubulars

ASTRON MINIMITE Type MM units are hermetically sealed aluminum-cased capacitors designed for a wide range of operating conditions with the added advantages of small size, light weight and long service life. They are handy units for under-chassis equipment where capacitors are subject to high surge voltage and high ripple currents. The units are supplied with outer insulating tube of varnished kraftboard. Duals have a centered radial mounting strap. Single section units can be supplied with a mounting strap. These units are especially suited for operation in tropical, hot and humid climates.

Catalog Number	Cap. Mf.	WVDC	†Dia. x Length	Net Ea.
SINGLE MINIMITE				
MM-500-6	500	6	¾ x 1⅝	$ .91
MM-1000-6	1000	6	⅞ x 2 1/16	1.12
MM-500-15	500	15	⅞ x 2 1/16	1.03
MM-1000-15	1000	15	1 x 2 11/16	1.35
MM-10-25	10	25	½ x 1 1/16	.59
MM-25-25	25	25	½ x 1 1/16	.59
MM-50-25	50	25	⅝ x 1 1/16	.65
MM-100-25	100	25	⅝ x 1⅝	.79
MM-250-25	250	25	⅞ x 1⅝	1.00
MM-500-25	500	25	1 x 2⅜	1.41
MM-4-50	4	50	½ x 1 1/16	.56
MM-10-50	10	50	½ x 1 1/16	.59
MM-25-50	25	50	⅝ x 1 1/16	.59
MM-50-50	50	50	⅝ x 1⅝	.70
MM-100-50	100	50	¾ x 1⅝	.82
MM-4-150	4	150	½ x 1 1/16	.59
MM-8-150	8	150	½ x 1⅝	.62
MM-16-150	16	150	⅝ x 1⅝	.67
MM-20-150	20	150	⅝ x 1⅝	.70
MM-30-150	30	150	¾ x 1⅝	.76
MM-40-150	40	150	¾ x 1⅝	.79
MM-50-150	50	150	⅞ x 1⅝	.82
MM-80-150	80	150	⅞ x 2 1/16	.94
MM-100-150	100	150	⅞ x 2⅜	1.03
MM-150-150	150	150	1 x 2⅜	1.16
MM-8-250	8	250	⅝ x 1⅝	.67
MM-16-250	16	250	¾ x 1⅝	.76
MM-20-250	20	250	¾ x 1⅝	.79
MM-40-250	40	250	⅞ x 1¾	.91
MM-8-350	8	350	⅝ x 1⅝	$ .70
MM-10-350	10	350	¾ x 1⅝	.73
MM-20-350	20	350	⅞ x 1⅝	.85
MM-4-450	4	450	⅝ x 1⅜	.67
MM-8-450	8	450	¾ x 1⅜	.73
MM-10-450	10	450	¾ x 1⅝	.76
MM-12-450	12	450	⅞ x 1⅝	.79
MM-16-450	16	450	⅞ x 1¾	.82
MM-20-450	20	450	⅞ x 2 1/16	.91
MM-30-450	30	450	1 x 2⅜	1.00
MM-40-450	40	450	1 x 2 11/16	1.06
MM-80-450	80	450	1⅛ x 3¾	1.64
MM-8-500	8	500	⅞ x 2 1/16	.76
MM-16-500	16	500	1 x 2⅜	.88
MM-20-500	20	500	1 x 2⅜	.94
DUAL MINIMITE (Common Negative)				
MM-2x20-150	20 + 20	150	¾ x 1⅝	$ .91
MM-2x30-150	30 + 30	150	⅞ x 1⅝	1.06
MM-2x40-150	40 + 40	150	⅞ x 2 1/16	1.09
MM-5030-150	50 + 30	150	⅞ x 2 1/16	1.15
MM-2x50-150	50 + 50	150	⅞ x 2⅜	1.23
MM-8040-150	80 + 40	150	1 x 2⅜	1.29
MM-2x8-450	8 + 8	450	⅞ x 2 1/16	1.00
MM-2x10-450	10 + 10	450	⅞ x 2 1/16	1.09
MM-168-450	16 + 8	450	1 x 2 1/16	1.15
MM-2x16-450	16 + 16	450	1 x 2 11/16	1.32
MM-2x20-450	20 + 20	450	1 x 2 11/16	1.47

† Dimensions are for metal tubes. Add 1/16" to diameter and ⅛" to length for dimensions over cardboard insulating tube.

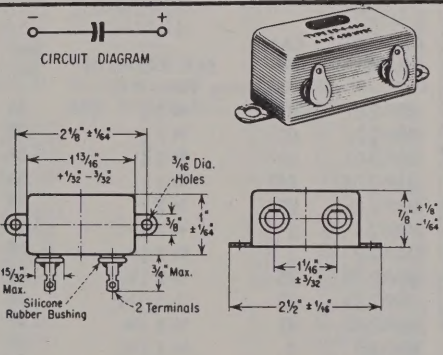


ASTRON TYPE ES

Cardboard Cased Electrolytic Tubulars

TYPE ES is an ASTRON-improved design in cardboard tubulars, far superior mechanically and in performance characteristics to other similar-appearing units. ASTRON-engineered improvements include plastic film-wrapped sections for permanent protection from moisture and humidity under all tropical and climatic conditions. Type ES can be used in place of costlier metal can capacitors of equal rating and performance requirements in television, radio and other equipment operating up to 65° C. Ratings and color-coding of the plastic insulated wire leads are clearly indicated on the tube. Standard color-coding of leads: Black is common negative; positive leads are Red, Yellow, Blue and Green in that order for highest to lowest ratings.

Catalog Number	Cap.Mf./WVDC	Dia. x Length	Net Ea.
DUAL UNITS (Common Negative)			
ESD-155	20 + 20/150	¾ x 2½	$ .97
ESD-160	30 + 30/150	⅞ x 2½	1.06
ESD-165	40 + 40/150	1 x 2½	1.09
ESD-170	50 + 30/150	1 x 2½	1.15
ESD-175	50 + 50/150	1 x 3	1.24
ESD-190	80 + 40/150	1⅛ x 3	1.32
ESD-255	20 + 20/250	⅞ x 2½	1.09
ESD-455	20 + 20/450	1⅛ x 3¼	1.47
TRIPLE UNITS (Common Negative)			
EST-555	20 + 20 + 20/150	1 x 2½	$1.29
EST-570	40 + 30 + 20/150	1 x 2½	1.38
EST-575	40 + 40 + 20/150	1 x 3	1.38
EST-585	60 + 40 + 20/150	1 x 3¼	1.41
EST-595	80 + 40 + 20/150	1⅛ x 3¼	1.47
EST-610	40 + 10/150 + 20/25	1 x 2½	1.15
EST-620	40 + 30/150 + 20/25	1 x 2½	1.35
EST-625	40 + 40/150 + 40/25	1 x 3¼	1.41
EST-640	50 + 30/150 + 100/25	1 x 3¼	1.47
EST-655	50 + 30/150 + 200/10	1 x 3¼	1.50



85° ASTRON TYPE ED

Bathtub Case Capacitors (JAN. C-62 Style CE63)

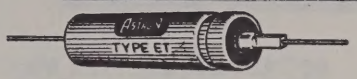
ASTRON TYPE ED bathtub electrolytics meet the most stringent electrical and mechanical requirements for top-grade commercial and military equipment. They are made in accordance with Specification JAN-C-62 for operation at temperatures from —40° C. to +85° C. Type ED capacitors are hermetically sealed, completely immersionproof, and are reliable under all conditions of humidity, moisture, pressure and vibration. The capacitor section is enclosed in an aluminum container sealed within the outer bathtub case. Silicone rubber compression-sealed lug terminals further assure long life.

‡Capacitors of ASTRON manufacture supplied in accordance with specification JAN-C-62 are indicated by the prefix "AS-" followed by the JAN Style "CE" designation. Standard units up to and including 400 volts are supplied in Characteristic C (—40° C. to +85° C.); 450-volt units are supplied in Characteristic F (—40° C. to +65° C.). Other characteristics are available in accordance with customers' requirements.

Standard Type ED is supplied with two terminals on side as shown. Type ED capacitors are also available as follows: Single terminal on side or top, with case grounded (ASTRON Type EDG or JAN Style CE61, and ASTRON Type EDGT or JAN Style CE62); and two-terminal units with terminals on top (ASTRON Type EDT or JAN Style CE64).

ASTRON Catalog Number	‡ASTRON Cat. No. based on Spec. JAN-C-62	Cap. Mf.	WVDC	Net Ea.
ED-100-15	AS-CE63C101E	100	15	$2.79
ED-25-25	AS-CE63C250F	25	25	2.63
ED-50-25	AS-CE63C500F	50	25	2.70
ED-75-25	AS-CE63C750F	75	25	2.79
ED-25-50	AS-CE63C250G	25	50	2.67
ED-50-50	AS-CE63C500G	50	50	2.76
ED-10-100	AS-CE63C100H	10	100	2.67
ED-25-100	AS-CE63C250H	25	100	2.79
ED-10-150	AS-CE63C100J	10	150	2.67
ED-20-150	AS-CE63C200J	20	150	2.76
ED-10-200	AS-CE63C100K	10	200	2.73
ED-15-200	AS-CE63C150K	15	200	2.79
ED-10-250	AS-CE63C100M	10	250	2.76
ED-12-250	AS-CE63C120M	12	250	2.79
ED-10-300	AS-CE63C100N	10	300	2.79
ED-8-350	AS-CE63C080P	8	350	2.76
ED-6-400	AS-CE63C060Q	6	400	2.76
ED-4-450	AS-CE63F040R	4	450	2.73

‡ Capacitors of ASTRON manufacture supplied in accordance with specification JAN-C-62 are indicated by the prefix "AS-" followed by the JAN Style "CE" designation. Standard units up to and including 400 volts are supplied in Characteristic C (—40°C. to +85°C.); 450-volt units are supplied in Characteristic F (—40°C. to +65°C.). Other characteristics are available in accordance with customers' requirements.

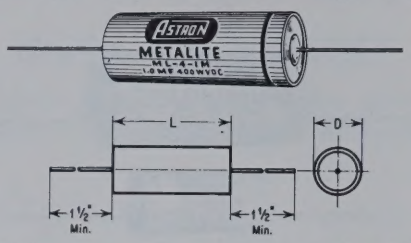


85° ASTRON TYPE ET

Miniature Electrolytics

Conservatively rated Type ET units are hermetically sealed in aluminum cases. Manufactured with contamination-free assembly of high purity foil. Their extreme compactness makes them ideal for all circuits demanding an absolute minimum of size and weight. Stable operation over a wide temperature range and consistent 85° C. operation is further assured by individual product testing, saving valuable assembly time and lowering ultimate costs.

TYPE	RATING CAP.	RATING VOLTS	CAN SIZE* D & L	Net Ea.
ET-25-3	25	3	3/8 x 1-1/16"	$ .50
ET-50-3	50	3	3/8 x 1-1/16"	.56
ET-100-3	100	3	3/8 x 1-1/16"	.65
ET-150-3	150	3	3/8 x 1-5/8"	.65
ET-200-3	200	3	3/8 x 1-5/8"	.73
ET-300-3	300	3	3/8 x 1-5/8"	.76
ET-5-6	5	6	3/8 x 1-1/16"	.47
ET-25-6	25	6	3/8 x 1-1/16"	.50
ET-50-6	50	6	3/8 x 1-1/16"	.56
ET-75-6	75	6	3/8 x 1-1/16"	.59
ET-100-6	100	6	3/8 x 1-5/8"	.70
ET-125-6	125	6	3/8 x 1-5/8"	.70
ET-50-15	50	15	3/8 x 1-1/16"	.59
ET-100-15	100	15	3/8 x 1-5/8"	.73
ET-5-25	5	25	3/8 x 1-1/16"	.59
ET-10-25	10	25	3/8 x 1-1/16"	.59
ET-20-25	20	25	3/8 x 1-1/16"	.59
ET-25-25	25	25	3/8 x 1-1/16"	.59
ET-50-25	50	25	3/8 x 1-5/8"	.65
ET-1-50	1	50	3/8 x 1-1/16"	.53
ET-2-50	2	50	3/8 x 1-1/16"	.53
ET-4-50	4	50	3/8 x 1-1/16"	.59
ET-5-50	5	50	3/8 x 1-1/16"	.59
ET-10-50	10	50	3/8 x 1-1/16"	.59
ET-15-50	15	50	3/8 x 1-1/16"	.59
ET-20-50	20	50	3/8 x 1-1/16"	.62
ET-25-50	25	50	3/8 x 1-5/8"	.62
ET-10-90	10	90	3/8 x 1-5/8"	.65
ET-5-100	5	100	3/8 x 1-1/16"	.59
ET-10-100	10	100	3/8 x 1-5/8"	.59
ET-1-150	1	150	3/8 x 1-1/16"	.59
ET-2-150	2	150	3/8 x 1-1/16"	.59
ET-4-150	4	150	3/8 x 1-1/16"	.59
ET-5-150	5	150	3/8 x 1-1/16"	.59
ET-8-150	8	150	3/8 x 1-5/8"	.62
ET-10-150	10	150	3/8 x 1-5/8"	.62
ET-12-150	12	150	3/8 x 1-5/8"	.65
ET-4-250	4	250	3/8 x 1-5/8"	.59



65° C. ASTRON TYPE ML

Cardboard Tubular

Metallized Paper Capacitors

ASTRON METALITE Type ML tubulars are compact space-saving capacitors, smaller in length and diameter than conventional paper-foil capacitors of equivalent rating. They are suitable for operation at temperatures up to 65° C. They are ideal for portable radios, instruments, communications equipment, noise suppression systems, and many other commercial and military applications. Type ML capacitor sections are vacuum impregnated with a microcrystalline hydrocarbon wax. The units are encased in wax-impregnated cardboard tubes and have securely soldered metal end-caps for exceptional mechanical strength. This type is sufficiently small and light in weight to be point-to-point connected and supported by its own leads. A double overall coating of mineral wax provides added protection against moisture and humidity.

STANDARD CAPACITANCE TOLERANCE: —20% +30%.

Catalog Number	Cap. Mf.	Dia. x Length	Net Ea.
200 Working Volts D.C.			
ML-2-01	.01	⅜ x ⅝	.38
ML-2-02	.02	⅜ x ⅝	.38
ML-2-03	.03	⅜ x ⅝	.38
ML-2-05	.05	⅜ x ⅝	.38
ML-2-1	.1	⅜ x ⅝	.41
ML-2-25	.25	15/32 x ⅝	.53
ML-2-5	.5	15/32 x 1⅛	.62
ML-2-1M	1.0	9/16 x 1⅛	.76
ML-2-2M	2.0	⅝ x 1⅝	1.06
400 Working Volts D.C.			
ML-4-01	.01	⅜ x ⅝	.41
ML-4-02	.02	⅜ x ⅝	.41
ML-4-03	.03	⅜ x ⅝	.41
ML-4-05	.05	15/32 x ⅝	.41
ML-4-1	.1	15/32 x 1⅛	.47
ML-4-25	.25	9/16 x 1⅛	.59
ML-4-5	.5	⅝ x 1⅝	.68
ML-4-1M	1.0	23/32 x 2⅛	.94
600 Working Volts D.C.			
ML-6-01	.01	⅜ x ⅝	.41
ML-6-02	.02	⅜ x ⅝	.41
ML-6-03	.03	15/32 x ⅝	.47
ML-6-05	.05	15/32 x ⅝	.47
ML-6-1	.1	15/32 x 1⅛	.53
ML-6-25	.25	⅝ x 1⅛	.65
ML-6-5	.5	23/32 x 1⅝	.85
ML-6-1M	1.0	23/32 x 2⅛	1.06

100° ASTRON TYPE MLL

Cardboard Tubular

Metallized Paper Capacitors

Similar to Type ML in size and construction, but made with solid thermosetting impregnant to permit operation up to 100° C.

Catalog Number	Cap. Mf.	Dia. x Length	Net Ea.
200 Working Volts D.C.			
MLL-2-01	.01	⅜ x ⅝	$ .59
MLL-2-02	.02	⅜ x ⅝	.59
MLL-2-03	.03	⅜ x ⅝	.59
MLL-2-05	.05	⅜ x ⅝	.59
MLL-2-1	.1	⅜ x ⅝	.62
MLL-2-25	.25	15/32 x ⅝	.79
MLL-2-5	.5	15/32 x 1⅛	.94
MLL-2-1M	1.0	9/16 x 1⅛	1.15
MLL-2-2M	2.0	⅝ x 1⅝	1.59
400 Working Volts D.C.			
MLL-4-01	.01	⅜ x ⅝	.62
MLL-4-02	.02	⅜ x ⅝	.62
MLL-4-03	.03	⅜ x ⅝	.62
MLL-4-05	.05	15/32 x ⅝	.62
MLL-4-1	.1	15/32 x 1⅛	.71
MLL-4-25	.25	9/16 x 1⅛	.88
MLL-4-5	.5	⅝ x 1⅝	1.03
MLL-4-1M	1.0	23/32 x 2⅛	1.41
600 Working Volts D.C.			
MLL-6-01	.01	⅜ x ⅝	.62
MLL-6-02	.02	⅜ x ⅝	.62
MLL-6-03	.03	15/32 x ⅝	.71
MLL-6-05	.05	15/32 x ⅝	.71
MLL-6-1	.1	15/32 x 1⅛	.79
MLL-6-25	.25	⅝ x 1⅛	.97
MLL-6-5	.5	23/32 x 1⅝	1.29
MLL-6-1M	1.0	23/32 x 2⅛	1.59

STANDARD CAPACITANCE TOLERANCE: —20% +30%.

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

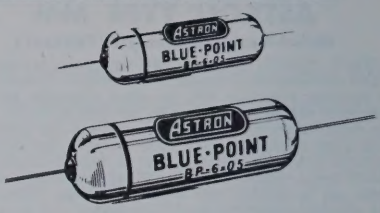
125° ASTRON TYPE MBP

Molded Plastic

Metalized Paper Capacitors

Similar to Type MLL, but with the added advantages of molded plastic case, extremely high humidity. Resistance and reliable operation over temperature range of —65° C. to +125° C.

CATALOG NUMBER	CAP. MF.	DIA. X LENGTH	Net Ea.
200 Working Volts D.C.			
MBP-2-01	.01	⅜ X 1	.38
MBP-2-02	.02	⅜ X 1	.38
MBP-2-03	.03	⅜ X 1	.38
MBP-2-047	.047	⅜ X 1	.38
MBP-2-05	.05	⅜ X 1	.38
MBP-2-1	.1	⅜ X 1	.41
MBP-2-2	.2	⅜ X 1¼	.47
MBP-2-25	.25	⅜ X 1¼	.53
MBP-2-33	.33	⅞ X 1¼	.56
MBP-2-47	.47	½ X 1⅝	.61
MBP-2-5	.5	½ X 1⅝	.61
MBP-2-68	.68	½ X 1⅝	.70
MBP-2-1M	1.	⅝ X 1⅞	.76
MBP-2-2M	2.	⅝ X 1⅞	1.06
400 Working Volts D.C.			
MBP-4-01	.01	⅜ X 1	.41
MBP-4-02	.02	⅜ X 1	.41
MBP-4-03	.03	⅜ X 1	.41
MBP-4-047	.047	⅜ X 1¼	.41
MBP-4-05	.05	⅜ X 1¼	.41
MBP-4-1	.1	⅞ X 1¼	.47
MBP-4-2	.2	½ X 1⅝	.53
MBP-4-25	.25	½ X 1⅝	.53
MBP-4-33	.33	⅝ X 1⅞	.65
MBP-4-47	.47	⅝ X 1⅞	.68
MBP-4-5	.5	⅝ X 1⅞	.68
600 Working Volts D.C.			
MBP-6-01	.01	⅜ X 1	.41
MBP-6-02	.02	⅜ X 1	.41
MBP-6-03	.03	⅜ X 1¼	.47
MBP-6-047	.047	⅜ X 1¼	.47
MBP-6-05	.05	⅜ X 1¼	.47
MBP-6-068	.068	⅞ X 1¼	.50
MBP-6-1	.1	½ X 1⅝	.53
MBP-6-2	.2	⅝ X 1⅞	.59
MBP-6-25	.25	⅝ X 1⅞	.65



ASTRON TYPE BP

Blue Point Molded Plastic Tubulars

ASTRON "BLUE POINT" Type BP capacitors are the finest all-purpose molded plastic paper tubulars ever made. They are suitable for continuous operation at 85° C. without derating. With the famous "Blue Point" seal, they are unsurpassed for dependability in television, radio and other applications where a combination of small size, excellent capacitance-temperature stability, vibration resistance and moisture resistance are prime requisites. They are absolutely dependable for outstanding performance in tropical, hot and humid climates.

Due to the solid thermosetting impregnant, BLUE POINTS show highly stable capacitance characteristics; also low power factor and high insulation resistance over the entire temperature range of —40° C. to +85° C.

Catalog Number	Cap. Mf.	Dia. x Length	Net Ea.
200 Working Volts D.C.			
BP-2-01	.01	⅜ x 1	$0.15
BP-2-02	.02	⅜ x 1	.15
BP-2-05	.05	⅜ x 1¼	.15
BP-2-1	.1	7/16 x 1¼	.21
BP-2-2	.2	⅝ x 1⅞	.27
BP-2-25	.25	⅝ x 1⅞	.27
BP-2-5	.5	⅝ x 1⅞	.35
400 Working Volts D.C.			
BP-4-01	.01	⅜ x 1	.15
BP-4-02	.02	⅜ x 1¼	.15
BP-4-03	.03	7/16 x 1¼	.18
BP-4-05	.05	7/16 x 1¼	.18
BP-4-1	.1	½ x1⅝	.21
BP-4-2	.2	⅝ x 1⅞	.24
BP-4-25	.25	⅝ x 1⅞	.27
600 Working Volts D.C.			
BP-6-001	.001	⅜ x 1	.15
BP-6-0015	.0015	⅜ x 1	.15
BP-6-002	.002	⅜ x 1	.15
BP-6-0022	.0022	⅜ x 1	.15
BP-6-003	.003	⅜ x 1	.15
BP-6-004	.004	⅜ x 1	.15
BP-6-0047	.0047	⅜ x 1	.15
BP-6-005	.005	⅜ x 1	.15
BP-6-006	.006	⅜ x 1	.15
BP-6-01	.01	⅜ x 1¼	.18
BP-6-015	.015	⅜ x 1¼	.18
BP-6-02	.02	7/16 x 1¼	.18
BP-6-022	.022	7/16 x 1¼	.18
BP-6-03	.03	½ x 1⅝	.21
BP-6-04	.04	½ x 1⅝	.21
BP-6-047	.047	½ x 1⅝	.24
BP-6-05	.05	½ x 1⅝	.24
BP-6-08	.08	⅝ x 1⅞	.24
BP-6-1	.1	⅝ x 1⅞	.27
1600 Working Volts D.C.			
BP-16-001	.001	⅜ x 1¼	.32
BP-16-002	.002	⅜ x 1¼	.32
BP-16-003	.003	⅜ x 1¼	.32
BP-16-004	.004	⅜ x 1¼	.32
BP-16-005	.005	7/16 x 1¼	.32
BP-16-006	.006	7/16 x 1¼	.32
BP-16-007	.007	7/16 x 1¼	.35
BP-16-008	.008	½ x 1⅝	.35
BP-16-01	.01	½ x 1⅝	.35
BP-16-015	.015	½ x 1⅝	.35
BP-16-02	.02	⅝ x 1⅞	.35
BP-16-03	.03	⅝ x 1⅞	.35

125° C. ASTRON TYPE AQ

Subminiature Glass To Metal Sealed Tubulars

(Capacitor Section Grounded To Case MIL-C-25A Style CP08, Circuit 3)

Extended Foil Construction

METEOR Type AQ capacitors are hermetically sealed subminiature metal-cased units available in extended foil, non-inductively wound construction. They are compact units for operation over a wide temperature range to 125° C. without derating. **Standard Tolerance ± 20%. Can be furnished to closer tolerance on request.**

Furnished in a variety of metal cases and construction styles, they are designed both electrically and mechanically to surpass the most stringent requirements of Specification MIL-C-25A. Positive hermetic closure of the metal cases is assured by glass-to-metal solder seal terminals.

The exclusive ASTRON-developed impregnant X-250 provides exceptional capacitance stability over a wide temperature range of —65° C. to +125° C. It also provides high insulation resistance, low power factor, and high test voltage for extra margin safety. The extended foil non-inductive construction offers the lowest possible resonant losses in both low and high voltage applications. Type AQ can be used in AC as well as DC applications.

ASTRON Catalog Number	ASTRON Cat. No. based on Spec. MIL-C-25A	Cap. Mf.	Dia. x Length	Net Ea.
100 VOLTS D.C. WORKING				
AQ-1-0033	———	.0033	.235 x 11/16	$1.38
AQ-1-0047	———	.0047	.235 x 11/16	$1.38
AQ-1-01	AS-CP08A3KB103M	.01	.235 x 11/16	1.41
AQ-1-015	AS-CP08A3KB153M	.015	.235 x 11/16	1.44
AQ-1-022	———	.022	.312 x 15/16	1.50
AQ-1-033	———	.033	.312 x 13/16	1.53
AQ-1-047	AS-CP08A3KB473M	.047	.312 x 13/16	1.53
AQ-1-068	———	.068	.400 x 13/16	1.59
AQ-1-1	AS-CP08A3KB104M	.1	.400 x 13/16	1.59
AQ-1-15	AS-CP08A3KB154M	.15	.400 x 11/16	1.65
AQ-1-22	AS-CP08A3KB224M	.22	.400 x 15/16	1.73
AQ-1-27	———	.27	.562 x 11/16	1.88
AQ-1-33	AS-CP08A3KB334M	.33	.562 x 11/16	1.94
AQ-1-47	AS-CP08A3KB474M	.47	.562 x 15/16	2.09
AQ-1-56	———	.56	.562 x 19/16	2.18
AQ-1-68	AS-CP08A3KB684M	.68	.562 x 19/16	2.23
AQ-1-1M	AS-CP08A3KB105M	1.0	.670 x 19/16	2.56
200 VOLTS D.C. WORKING				
AQ-2-0022	———	.0022	.235 x 11/16	1.41
AQ-2-0033	———	.0033	.235 x 11/16	1.44
AQ-2-0047	———	.0047	.235 x 11/16	1.44
AQ-2-0068	———	.0068	.235 x 11/16	1.44
AQ-2-01	———	.01	.312 x 13/16	1.56
AQ-2-015	———	.015	.312 x 13/16	1.56
AQ-2-022	AS-CP08A3KC223M	.022	.312 x 13/16	1.59
AQ-2-033	AS-CP08A3KC333M	.033	.312 x 13/16	1.59
AQ-2-047	AS-CP08A3KC473M	.047	.400 x 13/16	1.65
AQ-2-056	———	.056	.400 x 13/16	1.68
AQ-2-068	AS-CP08A3KC683M	.068	.400 x 13/16	1.68
AQ-2-1	AS-CP08A3KC104M	.1	.400 x 11/16	1.68
AQ-2-15	AS-CP08A3KC154M	.15	.400 x 15/16	1.82
AQ-2-22	AS-CP08A3KC224M	.22	.562 x 11/16	1.97
AQ-2-27	———	.27	.562 x 15/16	2.06
AQ-2-33	AS-CP08A3KC334M	.33	.562 x 15/16	2.12
AQ-2-47	AS-CP08A3KC474M	.47	.562 x 19/16	2.29
AQ-2-56	———	.56	.670 x 19/16	2.50
AQ-2-68	AS-CP08A3KC684M	.68	.670 x 19/16	2.56
AQ-2-1M	AS-CP08A3KC105M	1.0	.750 x 21/16	2.73
300 VOLTS D.C. WORKING				
AQ-3-0022	———	.0022	.235 x 11/16	1.44
AQ-3-0033	———	.0033	.235 x 11/16	1.47
AQ-3-0047	———	.0047	.235 x 11/16	1.47
AQ-3-01	———	.01	.312 x 13/16	1.59
AQ-3-015	———	.015	.312 x 13/16	1.59
AQ-3-022	———	.022	.312 x 13/16	1.65
AQ-3-033	———	.033	.400 x 13/16	1.65
AQ-3-047	———	.047	.400 x 13/16	1.68
AQ-3-068	———	.068	.400 x 11/16	1.68
AQ-3-1	———	.1	.400 x 15/16	1.71
AQ-3-15	———	.15	.562 x 11/16	1.79
AQ-3-22	———	.22	.562 x 15/16	1.97
AQ-3-27	———	.27	.562 x 19/16	2.12
AQ-3-33	———	.33	.562 x 19/16	2.21
AQ-3-47	———	.47	.670 x 19/16	2.26
AQ-3-56	———	.56	.750 x 21/16	2.47
AQ-3-68	———	.68	.750 x 21/16	2.56
400 VOLTS D.C. WORKING				
AQ-4-0022	AS-CP08A3KE222M	.0022	.235 x 11/16	1.50
AQ-4-0033	AS-CP08A3KE332M	.0033	.235 x 11/16	1.50
AQ-4-0047	AS-CP08A3KE472M	.0047	.312 x 13/16	1.62
AQ-4-0068	AS-CP08A3KE682M	.0068	.312 x 13/16	1.62
AQ-4-01	AS-CP08A3KE103M	.01	.312 x 13/16	1.65
AQ-4-015	AS-CP08A3KE153M	.015	.312 x 13/16	1.65
AQ-4-022	AS-CP08A3KE223M	.022	.400 x 13/16	1.71
AQ-4-033	AS-CP08A3KE333M	.033	.400 x 15/16	1.71
AQ-4-047	AS-CP08A3KE473M	.047	.400 x 11/16	1.76
AQ-4-068	AS-CP08A3KE683M	.068	.400 x 15/16	1.82
AQ-4-1	AS-CP08A3KE104M	.1	.562 x 11/16	1.97
AQ-4-15	AS-CP08A3KE154M	.15	.562 x 11/16	2.12
AQ-4-22	AS-CP08A3KE224M	.22	.562 x 19/16	2.26
AQ-4-27	———	.27	.670 x 19/16	2.41
AQ-4-33	AS-CP08A3KE334M	.33	.670 x 19/16	2.56
AQ-4-47	AS-CP08A3KE474M	.47	.750 x 21/16	2.73
600 VOLTS D.C. WORKING				
AQ-6-0022	———	.0022	.235 x 11/16	1.50
AQ-6-0033	———	.0033	.312 x 13/16	1.62
AQ-6-0047	———	.0047	.312 x 13/16	1.62
AQ-6-0068	———	.0068	.312 x 13/16	1.65
AQ-6-01	———	.01	.312 x 13/16	1.65
AQ-6-015	———	.015	.400 x 13/16	1.73
AQ-6-022	———	.022	.400 x 13/16	1.76
AQ-6-033	———	.033	.400 x 11/16	1.76
AQ-6-047	———	.047	.400 x 15/16	1.88
AQ-6-068	———	.068	.562 x 11/16	2.03
AQ-6-1	———	.1	.562 x 15/16	2.12
AQ-6-15	———	.15	.562 x 19/16	2.32
AQ-6-22	———	.22	.670 x 19/16	2.65
AQ-6-27	———	.27	.750 x 21/16	2.73
AQ-6-33	———	.33	.750 x 21/16	2.79
AQ-6-47	———	.47	.750 x 25/16	3.00

CIRCUIT 3

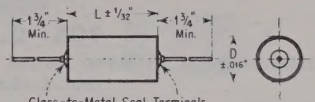
CAPACITOR SECTION GROUNDED TO CASE (Glass-to-Metal Terminal at one end)

	ASTRON TYPE AND DESCRIPTION	MIL STYLE	Change in Net Price
Uninsulated Body sizes shown in listings	AQ —grounded construction, as listed.	CP08	
	AQ—A —with tangential soldered-on bracket; add suffix "A". Example: AQ-1-22-A	—	+$ .24
	AQ—B —with soldered-on L-type bracket; add suffix "B" Example: AQ-1-22-B.	—	+ .24
	AQS —screw neck mounting type. Available in all ratings as for type AQ. Minimum case diameter is .400". Example: AQS-1-22.	—	+ .47
	AQV —stud base mounting type. Available in all ratings as for type AQ Example: AQV-1-22.	—	+ .35
Insulated Body Add 1/16" to dia. and length of AQ sizes listed	AQP —grounded construction, with plastic outer sleeve (P). Example: AQP-1-22.	CP09	+ .09

CIRCUIT 1

CAPACITOR SECTION INSULATED FROM CASE (Glass-to-Metal Terminal at both ends)

	ASTRON TYPE AND DESCRIPTION	MIL STYLE	Change in Net Price
	AQF —internally insulated ("floating" construction).	CP08	+$ .59
Uninsulated Body Add 1/16" to length of AQ sizes listed	AQF—A—with tangential soldered-on bracket; add suffix "A". Example: AQF-1-22-A	—	+ .82
	AQF—B—with soldered-on L-type bracket; add suffix "B" (see page 47). Example: AQF-1-22-B.	—	+ .82
	AQFS —screw neck mounting type. Available in all ratings as for type AQ. Minimum case diameter is .400". Example AQFS-1-22.	—	+ 1.06
Insulated Body Add 1/16" to dia. and 1/8" to length of AQ sizes listed	AQFP —internally insulated ("floating" construction) with plastic outer sleeve (P). Example: AQFP-1-22.	CP09	+ .68



150° C. ASTRON TYPE XQF

Metal-Cased Polyester Plastic Capacitors

Extended Foil Construction

Type XQF polyester plastic capacitors are the new Astron-developed and engineered miniature metal cased tubular for reliable and dependable operation up to 150° C. without derating. This type can also be operated at higher temperatures at derated voltage. Covering the wide operating temperature range of —65° C. to +150° C. without derating, these miniaturized hermetically sealed metal tubulars provide exceptional capacitance stability and retrace over this wide variation in operating temperatures as well as excellent insulation resistance, power factor and long life.

Listed in floating construction as Type XQF (capacitor section insulated from case), they can also be furnished in grounded construction as Type XQF (capacitor section grounded to case).

Type XQF polyester plastic capacitors are furnished in extended foil, non-inductive construction for minimum RF impedance, and provide for strong, positive soldered end connections to wire leads. Hermetic sealing of these capacitors is achieved by the use of glass-to-metal sealed terminals for dependable operation and long life at high temperatures as well as in a wide variety of environmental conditions.

Designed in Specification MIL-C-25A case styles these polyester plastic capacitors will meet the physical and environmental conditions required in this MIL specification.

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

Catalog Number	Cap. Mf.	Dia. x Length	Net Ea.
50 Working Volts D.C.			
XQF-.5-0047	.0047	.235 x 13/16	$2.58
XQF-.5-01	.01	.235 x 13/16	2.70
XQF-.5-022	.022	.235 x 13/16	2.73
XQF-.5-033	.033	.235 x 15/16	2.79
XQF-.5-047	.047	.312 x 15/16	2.85
XQF-.5-1	.1	.400 x 15/16	2.91
XQF-.5-22	.22	.400 x 11/16	3.09
XQF-.5-27	.27	.400 x 17/16	3.18
XQF-.5-47	.47	.562 x 11/16	3.58
XQF-.5-1M	1.0	.562 x 111/16	4.11
100 Working Volts D.C.			
XQF-1-0047	.0047	.235 x 13/16	2.73
XQF-1-01	.01	.235 x 13/16	2.85
XQF-1-022	.022	.312 x 15/16	2.88
XQF-1-033	.033	.312 x 15/16	2.94
XQF-1-047	.047	.312 x 15/16	3.00
XQF-1-1	.1	.400 x 15/16	3.06
XQF-1-22	.22	.562 x 11/16	3.26
XQF-1-27	.27	.562 x 11/16	3.35
XQF-1-47	.47	.562 x 111/16	3.76
XQF-1-1M	1.0	.750 x 111/16	4.32
200 Working Volts D.C.			
XQF-2-0047	.0047	.235 x 13/16	2.85
XQF-2-01	.01	.235 x 15/16	2.97
XQF-2-022	.022	.312 x 15/16	3.00
XQF-2-033	.033	.400 x 15/16	3.06
XQF-2-047	.047	.400 x 11/16	3.09
XQF-2-1	.1	.400 x 17/16	3.17
XQF-2-22	.22	.562 x 11/16	3.38
XQF-2-27	.27	.670 x 111/16	3.47
XQF-2-47	.47	.750 x 111/16	4.44
XQF-2-1M	1.0	1 x 23/16	4.61
400 Working Volts D.C.			
XQF-4-0047	.0047	.235 x 13/16	3.00
XQF-4-01	.01	.312 x 15/16	3.12
XQF-4-022	.022	.312 x 11/16	3.18
XQF-4-033	.033	.400 x 11/16	3.20
XQF-4-047	.047	.400 x 17/16	3.23
XQF-4-1	.1	.562 x 17/16	3.32
XQF-4-22	.22	.670 x 111/16	3.56
XQF-4-27	.27	.750 x 111/16	4.09
XQF-4-47	.47	.750 x 23/16	4.23
600 Working Volts D.C.			
XQF-6-0047	.0047	.235 x 15/16	3.06
XQF-6-01	.01	.312 x 15/16	3.18
XQF-6-022	.022	.400 x 15/16	3.20
XQF-6-033	.033	.400 x 17/16	3.23
XQF-6-047	.047	.400 x 17/16	3.26
XQF-6-1	.1	.562 x 17/16	3.47
XQF-6-22	.22	.750 x 111/16	3.94
XQF-6-27	.27	.750 x 23/16	4.03
XQF-6-47	.47	1 x 23/16	4.61

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

125° C. ASTRON TYPE TQF

Subminiature Glass To Metal Sealed Tubulars. Capacitor Section Insulated From Case (MIL-C-25A Style CP04, Circuit 1)

Inserted Tab Construction

Where smallest possible capacitor sizes are required, coupled with maximum capacitance stability and high insulation resistance over a wide temperature range, METEOR Type TQF is best suited for the application.

Furnished in a variety of metal case and construction styles, they are designed both electrically and mechanically to surpass the most stringent requirements of Specification MIL-C-25A. Positive hermetic closure of the metal cases is assured by glass-to-metal solder seal terminals at both ends.

The exclusive Astron developed impregnant X-250 provides exceptional capacitance stability over the entire temperature range of —65° C. through +125° C. It also provides high insulation resistance, low power factor and high test voltage for extra margin of safety. Type TQF can be used in AC as well as DC applications.

ASTRON Catalog Number	ASTRON Cat. No. based on Spec. MIL-C-25A	Cap. Mf.	Dia. x Length	Net Ea.
100 VOLTS D.C. WORKING				
TQF-1-027	———	.027	.235 x ¾	$2.00
TQF-1-033	AS-CP04A1KB333M	.033	.235 x ¾	2.03
TQF-1-047	———	.047	.312 x ⅞	2.12
TQF-1-068	———	.068	.312 x ⅞	2.15
TQF-1-1	AS-CP04A1KB104M	.1	.312 x ⅞	2.18
TQF-1-15	AS-CP04A1KB154M	.15	.400 x ⅞	2.21
TQF-1-22	AS-CP04A1KB224M	.22	.400 x 1⅛	2.26
TQF-1-27	———	.27	.400 x 1⅜	2.32
TQF-1-33	AS-CP04A1KB334M	.33	.400 x 1⅜	2.35
TQF-1-47	AS-CP04A1KB474M	.47	.562 x 1⅛	2.56
TQF-1-68	AS-CP04A1KB684M	.68	.562 x 1⅜	2.70
TQF-1-1M	AS-CP04A1KB105M	1.0	.562 x 1⅞	2.88
200 VOLTS D.C. WORKING				
TQF-2-01	———	.01	.235 x ¾	2.09
TQF-2-015	AS-CP04A1KC153M	.015	.235 x ¾	2.09
TQF-2-022	AS-CP04A1KC223M	.022	.235 x ¾	2.09
TQF-2-027	———	.027	.312 x ⅞	2.15
TQF-2-033	———	.033	.312 x ⅞	2.18
TQF-2-047	AS-CP04A1KC473M	.047	.312 x ⅞	2.21
TQF-2-068	AS-CP04A1KC683M	.068	.312 x ⅞	2.23
TQF-2-1	AS-CP04A1KC104M	.1	.400 x ⅞	2.26
TQF-2-15	AS-CP04A1KC154M	.15	.400 x 1⅛	2.29
TQF-2-22	AS-CP04A1KC224M	.22	.400 x 1⅜	2.41
TQF-2-27	———	.27	.562 x 1⅛	2.53
TQF-2-33	AS-CP04A1KC334M	.33	.562 x 1⅛	2.59
TQF-2-47	AS-CP04A1KC474M	.47	.562 x 1⅜	2.73
TQF-2-68	AS-CP04A1KC684M	.68	.562 x 1⅞	2.91
TQF-2-1M	AS-CP04A1KC105M	1.0	.670 x 1⅞	3.20
300 VOLTS D.C. WORKING				
TQF-3-006	———	.0068	.235 x ¾	2.09
TQF-3-01	———	.01	.235 x ¾	2.12
TQF-3-015	———	.015	.235 x ¾	2.12
TQF-3-022	———	.022	.312 x ⅞	2.21
TQF-3-027	———	.027	.312 x ⅞	2.21
TQF-3-033	———	.033	.312 x ⅞	2.21
TQF-3-047	———	.047	.312 x ⅞	2.23
TQF-3-068	———	.068	.400 x ⅞	2.29
TQF-3-1	———	.1	.400 x 1⅛	2.32
TQF-3-15	———	.15	.400 x 1⅜	2.41
TQF-3-22	———	.22	.562 x 1⅛	2.59
TQF-3-27	———	.27	.562 x 1⅜	2.68
TQF-3-33	———	.33	.562 x 1⅜	2.73
TQF-3-47	———	.47	.562 x 1⅞	2.88
TQF-3-68	———	.68	.670 x 1⅞	3.17
TQF-3-1M	———	1.0	.750 x 2⅛	3.41
400 VOLTS D.C. WORKING				
TQF-4-001	AS-CP04A1KE102M	.001	.235 x ¾	$2.12
TQF-4-0015	AS-CP04A1KE152M	.0015	.235 x ¾	2.12
TQF-4-0022	AS-CP04A1KE222M	.0022	.235 x ¾	2.12
TQF-4-0033	AS-CP04A1KE332M	.0033	.235 x ¾	2.12
TQF-4-0047	AS-CP04A1KE472M	.0047	.235 x ¾	2.12
TQF-4-0068	AS-CP04A1KE682M	.0068	.235 x ¾	2.12
TQF-4-01	AS-CP04A1KE103M	.01	.235 x ¾	2.15
TQF-4-015	AS-CP04A1KE153M	.015	.235 x ⅞	2.23
TQF-4-022	AS-CP04A1KE223M	.022	.312 x ⅞	2.23
TQF-4-027	———	.027	.312 x ⅞	2.26
TQF-4-033	AS-CP04A1KE333M	.033	.312 x ⅞	2.26
TQF-4-047	AS-CP04A1KE473M	.047	.400 x ⅞	2.32
TQF-4-068	AS-CP04A1KE683M	.068	.400 x 1⅜	2.38
TQF-4-1	AS-CP04A1KE104M	.1	.400 x 1⅜	2.43
TQF-4-15	AS-CP04A1KE154M	.15	.562 x 1⅛	2.59
TQF-4-22	AS-CP04A1KE224M	.22	.562 x 1⅜	2.73
TQF-4-27	———	.27	.562 x 1⅞	2.88
TQF-4-33	AS-CP04A1KE334M	.33	.562 x 1⅞	2.88
TQF-4-47	AS-CP04A1KE474M	.47	.670 x 1⅞	3.17
TQF-4-56	———	.56	.750 x 2⅛	3.38
TQF-4-68	AS-CP04A1KE684M	.68	.750 x 2⅛	3.82
TQF-4-1M	AS-CP04A1KE105M	1.0	1 x 1⅞	2.18
600 VOLTS D.C. WORKING				
TQF-6-0047	———	.0047	.235 x ¾	2.18
TQF-6-0068	———	.0068	.235 x ¾	2.23
TQF-6-01	———	.01	.312 x ⅞	2.26
TQF-6-015	———	.015	.312 x ⅞	2.26
TQF-6-022	———	.022	.312 x ⅞	2.26
TQF-6-027	———	.027	.400 x ⅞	2.35
TQF-6-033	———	.033	.400 x ⅞	2.38
TQF-6-047	———	.047	.400 x 1⅛	2.50
TQF-6-068	———	.068	.400 x 1⅜	2.65
TQF-6-1	———	.1	.562 x 1⅛	2.73
TQF-6-15	———	.15	.562 x 1⅜	2.94
TQF-6-22	———	.22	.562 x 1⅞	3.14
TQF-6-27	———	.27	.670 x 1⅞	3.23
TQF-6-33	———	.33	.670 x 1⅞	3.44
TQF-6-47	———	.47	.750 x 2⅛	3.62

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

CIRCUIT 1

CAPACITOR SECTION INSULATED FROM CASE (Glass-to-Metal Terminal at each end)

ASTRON TYPE AND DESCRIPTION	MIL STYLE	Change in Net Price
TQF —internally insulated ("floating" construction) as listed.	CP04	—
TQF—A—with tangential soldered-on bracket; add suffix "A". Example: TQF-1-22-A	CP10	+$ .24
TQF—B—with soldered-on L-type bracket; add suffix "B". Example: TQF-1-22-B	—	+ .24
TQFS —screw neck mounting type. Available in all ratings as for TQF. Minimum case diameter is .400". Example: TQFS-1-22.	CP11	+ .47
TQFP —internally insulated ("floating" construction) with plastic outer sleeve. Example: TQFP-1-22.	CP05	+ .09

Uninsulated Body sizes shown in listings

Insulated Body Add 1/16" to dia. and length of TQF sizes listed.

CIRCUIT 3

CAPACITOR SECTION GROUNDED TO CASE (Glass-to-Metal Terminal at one end)

ASTRON TYPE AND DESCRIPTION	MIL STYLE	Change in Net Price
TQ —grounded construction	CP04	—$ .59
TQ—A —with tangential soldered-on bracket; add suffix "A". Example: TQ-1-22-A	CP10	— .35
TQ—B —with soldered-on L-type bracket; add suffix "B". Example: TQ-1-22-B (also see page 47).	—	— .35
TQS —screw neck mounting type. Available in all ratings as for Type TQF. Minimum case diameter is .400". Example: TQS-1-22.	CP11	— .12
TQV —stud base mounting type. Available in all ratings as for Type TQF. Example: TQV-1-22	—	— .24
TQP —grounded construction, with plastic outer sleeve, (P). Example: TQP-1-22.	CP05	— .50

Uninsulated Body Deduct 1/16" from length of units listed.

Insulated Body Add 1/16" to dia. of sizes listed.

85° C. ASTRON TYPE MXJ

Metallized Paper Capacitors

In Terneplate "Squeeze Seam" Cases

ASTRON METALITE TYPE MXJ clearly illustrates the space-saving advantages of metallized paper capacitors. Case size reductions over equal paper-foil ratings in standard MIL-C-25A Style CP70 cases are as much as 50% to 75%. Hence, higher capacitance ratings than ever before are offered in this style case. Type MXJ is mineral wax impregnated and filled, suitable for operation at temperatures up to 85° C. The units are furnished with silicone rubber compression-sealed lug terminals. They are hermetically sealed, designed to meet MIL test requirements for humidity, thermocycle immersion and vibration. Spade bolt "J" brackets are supplied with each capacitor for convenient, rigid mounting.

Catalog Number	Cap. Mf.	L. x W. x	H.	Net Ea.
100 Working Volts D.C.				
MXJ-1-100M	100.0	3¾ x 1¾ x	4 13/16	$57.92
150 Working Volts D.C.				
MXJ-1.5-4M	4.0	1¾ x 1 x	1⅝	8.23
MXJ-1.5-10M	10.0	1¾ x 1 x	2⅝	12.20
MXJ-1.5-12M	12.0	1¾ x 1 x	2⅞	12.94
MXJ-1.5-15M	15.0	1¾ x 1 x	3⅜	15.73
MXJ-1.5-20M	20.0	1¾ x 1 x	4⅜	18.52
MXJ-1.5-25M	25.0	2½ x 1 3/16 x	3	21.76
MXJ-1.5-30M	30.0	2½ x 1 3/16 x	3⅞	24.70
MXJ-1.5-50M	50.0	2½ x 1 3/16 x	4¾	34.69
400 Working Volts D.C.				
MXJ-4-2M	2.0	1¾ x 1 x	2⅛	8.23
MXJ-4-4M	4.0	1¾ x 1 x	2⅞	11.17
MXJ-4-6M	6.0	1¾ x 1 x	3⅞	13.67
MXJ-4-8M	8.0	1¾ x 1 x	4¾	16.02
MXJ-4-10M	10.0	2½ x 1 3/16 x	3⅞	17.93
MXJ-4-20M	20.0	2½ x 1 3/16 x	4¾	29.69
MXJ-4-30M	30.0	3¾ x 1¼ x	4¾	37.34
600 Working Volts D.C.				
MXJ-6-1M	1.0	1¾ x 1 x	1⅝	8.09
MXJ-6-2M	2.0	1¾ x 1 x	2⅜	9.85
MXJ-6-4M	4.0	1¾ x 1 x	3⅞	13.46
MXJ-6-6M	6.0	1¾ x 1 x	4¾	15.43
MXJ-6-8M	8.0	2½ x 1 3/16 x	3⅞	17.90
MXJ-6-10M	10.0	2½ x 1 3/16 x	4¾	20.19
MXJ-6-15M	15.0	3¾ x 1¼ x	4¾	24.40
MXJ-6-20M	20.0	3¾ x 1¾ x	4¼	33.04

125° C. ASTRON TYPE MXLJ

Metallized Paper Capacitors

In Terneplate "Squeeze Seam" Cans

Similar to Type MXJ, but designed for operation up to 125° C. and supplied with glass to metal sealed lug terminals.

Catalog Number	Cap. Mf.	L. x W. x	H.	Net Ea.
150 Working Volts D.C.				
MXLJ-1.5-4M	4.0	1¾ x 1 x	1⅝	$9.00
MXLJ-1.5-10M	10.0	1¾ x 1 x	2⅝	13.37
MXLJ-1.5-12M	12.0	1¾ x 1 x	2⅞	14.36
MXLJ-1.5-15M	15.0	1¾ x 1 x	3⅜	17.26
MXLJ-1.5-20M	20.0	1¾ x 1 x	4⅜	20.31
MXLJ-1.5-25M	25.0	2½ x 1 3/16 x	3	23.87
MXLJ-1.5-30M	30.0	2½ x 1 3/16 x	3⅞	27.12
MXLJ-1.5-50M	50.0	2½ x 1 3/16 x	4¾	38.10
400 Working Volts D.C.				
MXLJ-4-2M	2.0	1¾ x 1 x	2⅛	9.00
MXLJ-4-4M	4.0	1¾ x 1 x	2⅞	12.23
MXLJ-4-6M	6.0	1¾ x 1 x	3⅞	14.99
MXLJ-4-8M	8.0	1¾ x 1 x	4¾	17.58
MXLJ-4-10M	10.0	2½ x 1 3/16 x	3⅞	19.67
MXLJ-4-20M	20.0	2½ x 1 3/16 x	4¾	32.60
MXLJ-4-30M	30.0	3¾ x 1¼ x	4¾	41.03
600 Working Volts D.C.				
MXLJ-6-1M	1.0	1¾ x 1 x	1⅝	8.85
MXLJ-6-2M	2.0	1¾ x 1 x	2⅜	10.79
MXLJ-6-4M	4.0	1¾ x 1 x	3⅞	14.76
MXLJ-6-6M	6.0	1¾ x 1 x	4¾	16.93
MXLJ-6-8M	8.0	2½ x 1 3/16 x	3⅞	19.64
MXLJ-6-10M	10.0	2½ x 1 3/16 x	4¾	22.16
MXLJ-6-15M	15.0	3¾ x 1¼ x	4¾	26.78
MXLJ-6-20M	20.0	3¾ x 1¾ x	4¼	37.28

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

85° ASTRON TYPE MQC

Glass to Metal Sealed Metallized Paper Tubulars

ASTRON METALITE TYPE MQC units are hermetically sealed tubulars, ideal for their minimum size and weight. They are designed to meet the stringent requirements of military, aircraft and other high quality electronic equipment for operation at temperatures up to 85° C. Type MQC is the smallest paper capacitor available, non-inductively wound, with one foil grounded to the case and a glass-to-metal terminal at one end. This type can also be supplied with capacitor section insulated from the case, with glass-to-metal terminals at both ends (specified as Type MQCF). Plastic insulating sleeve and/or mounting brackets can be supplied as shown in Variations below.

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

Catalog Number	Cap. Mf.	Dia. x Length	Net Ea.
150 Working Volts D.C.			
MQC-1.5-4M	4.0	1 x 1¾	2.94
MQC-1.5-6M	6.0	1 x 1¾	3.44
MQC-1.5-8M	8.0	1 x 2¼	3.91
200 Working Volts D.C.			
MQC-2-01	.01	.235 x ¾	1.21
MQC-2-02	.02	.235 x ¾	1.24
MQC-2-033	.033	.235 x ¾	1.24
MQC-2-04	.04	.235 x ¾	1.24
MQC-2-05	.05	.235 x ¾	1.24
MQC-2-1	.1	.312 x ¾	1.26
MQC-2-15	.15	.400 x ¾	1.29
MQC-2-2	.2	.400 x ¾	1.35
MQC-2-25	.25	.400 x ¾	1.38
MQC-2-33	.33	.400 x 1 1/16	1.41
MQC-2-5	.5	.400 x 1 1/16	1.41
MQC-2-68	.68	.562 x 1¼	1.50
MQC-2-1M	1.0	.562 x 1¼	1.56
MQC-2-1.5M	1.5	.562 x 1¾	1.68
MQC-2-2M	2.0	.562 x 1¾	2.32
400 Working Volts D.C.			
MQC-4-01	.01	.235 x ¾	1.24
MQC-4-02	.02	.235 x ¾	1.27
MQC-4-03	.03	.312 x ¾	1.27
MQC-4-04	.04	.312 x 1 1/16	1.29
MQC-4-05	.05	.312 x 1 1/16	1.29
MQC-4-1	.1	.400 x 1 1/16	1.32
MQC-4-15	.15	.562 x 1 1/16	1.38
MQC-4-2	.2	.562 x 1 1/16	1.41
MQC-4-25	.25	.562 x 1 1/16	1.44
MQC-4-33	.33	.562 x 1¼	1.49
MQC-4-5	.5	.562 x 1¾	1.61
MQC-4-68	.68	.670 x 1¾	1.73
MQC-4-1M	1.0	.670 x 2¼	1.79
MQC-4-1.5M	1.5	1 x 2¼	2.41
MQC-4-2M	2.0	1 x 2¼	2.71
MQC-4-4M	4.0	1⅛ x 2¼	4.03
600 Working Volts D.C.			
MQC-6-01	.01	.235 x ¾	1.26
MQC-6-015	.015	.312 x ¾	1.26
MQC-6-02	.02	.312 x ¾	1.28
MQC-6-03	.03	.312 x ¾	1.29
MQC-6-04	.04	.312 x 1 1/16	1.32
MQC-6-05	.05	.312 x 1 1/16	1.32
MQC-6-1	.1	.400 x 1 1/16	1.35
MQC-6-15	.15	.562 x 1 1/16	1.44
MQC-6-22	.22	.562 x 1¼	1.56
MQC-6-25	.25	.562 x 1¼	1.59
MQC-6-33	.33	.670 x 1¼	1.67
MQC-6-5	.5	.670 x 1¾	1.76
MQC-6-68	.68	.670 x 2¼	2.03
MQC-6-1M	1.0	.750 x 2¼	2.15
MQC-6-2M	2.0	1 x 2¼	3.03

CAPACITOR SECTION GROUNDED TO CASE

Glass-to-Metal Terminal at one end Circuit 3

CAPACITOR SECTION INSULATED FROM CASE

Glass-to-Metal Terminal at both ends Circuit 1

VARIATIONS AVAILABLE

	TYPE & DESCRIPTION		Change in Net Price
UNINSULATED BODY Sizes shown in listings	MQC	—Basic type as listed.	
	MQC-A	—with tangential (A) soldered-on bracket. Example: MQC-2-1-A.	+$ .24
	MQC-B	—with L-type (B) soldered-on bracket. Example: MQC-2-1-B.	+ .24
	MQCS	—Screw neck vertical-mounting type. Same ratings as Type MQC. Minimum diameter .400". Example: MQCS-2-1.	+ .29
	MQV	—Stud base vertical-mounting type. Same ratings and sizes as Type MQC. Example: MQV-2-1.	+ .35
INSULATED BODY Add 1/16" to dia. and length	MQCP	—Basic grounded construction as listed, with plastic outer sleeve (P). Example: MQCP-2-1.	+ .09

	TYPE & DESCRIPTION		Change in Net Price
UNINSULATED BODY Add 1/16" to length shown in listings	MQCF	—Basic internally insulated unit.	+$ .29
	MQCF-A	—with tangential (A) soldered-on bracket. Example: MQCF-2-1-A.	+ .53
	MQCF-B	—with L-type (B) soldered-on bracket. Example: MQCF-2-1-B.	+ .53
	MQCFS	—screw neck vertical-mounting type. Same ratings as MQC. Minimum diameter .400". Example: MQCFS-2-1.	+ .58
INSULATED BODY Add 1/16" to dia. and 1/16" to length shown in listings	MQCFP	—Basic internally insulated unit with plastic outer sleeve (P). Example: MQCFP-2-1.	+ .38

125° C. ASTRON TYPE MDL

Metallized Paper Bathtub Capacitors

ASTRON METALITE Hy-Met TYPE MDL bathtub capacitors offer a wide choice of high capacitance ratings far beyond the maximum limits of conventional paper-foil units in the same size MIL-C-25A Style CP53, 54 and 55 containers. Using solid thermosetting impregnant, Type MDL is designed for operation at temperatures up to 125° C. They are ideal in noise suppression circuits and similar low impedance applications in aircraft, military and other high quality electronic equipment. The units are hermetically sealed, and are supplied with lug type glass-to-metal sealed terminals.

STANDARD POSITION of terminals is on side as shown. Units can be supplied with top terminals (Type MDLT) or bottom terminals (Type MDLB).

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

Catalog Number	Cap. Mf.	W. x L. x H.	Net Ea.
150 Working Volts D.C.			
MDL-1.5-3M	3.0	1¾ x 1 x ⅞	4.76
MDL-1.5-4M	4.0	1¾ x 1 x ⅞	5.09
MDL-1.5-5M	5.0	1¾ x 1 x ⅞	5.27
MDL-1.5-6M	6.0	1¾ x 1¼ x ⅞	5.38
MDL-1.5-8M	8.0	2 x 1¾ x ¾	7.41
MDL-1.5-10M	10.0	2 x 1¾ x ¾	8.55
MDL-1.5-12M	12.0	2 x 2 x ⅞	9.70
MDL-1.5-15M	15.0	2 x 2 x 1	11.67
MDL-1.5-18M	18.0	2 x 2 x 1¼	13.23
MDL-1.5-20M	20.0	2 x 2 x 1½	14.76
200 Working Volts D.C.			
MDL-2-1	.1	1¾ x 1 x ¾	$2.32
MDL-2-25	.25	1¾ x 1 x ¾	2.50
MDL-2-5	.5	1¾ x 1 x ¾	2.91
MDL-2-1M	1.0	1¾ x 1 x ¾	3.15
MDL-2-2M	2.0	1¾ x 1 x ¾	3.94
MDL-4-1	.1	1¾ x 1 x ¾	2.85
MDL-4-25	.25	1¾ x 1 x ¾	2.97
MDL-4-5	.5	1¾ x 1 x ¾	3.14
MDL-4-1M	1.0	1¾ x 1 x ⅞	3.50
MDL-4-2M	2.0	2 x 1¾ x 1 3/16	4.32
MDL-4-3M	3.0	2 x 1¾ x 1 5/16	5.73
MDL-4-4M	4.0	2 x 2 x 1	6.94
MDL-4-5M	5.0	2 x 2 x 1¼	7.76
MDL-4-6M	6.0	2 x 2 x 1½	8.23
600 Working Volts D.C.			
MDL-6-1	.1	1¾ x 1 x ¾	3.08
MDL-6-25	.25	1¾ x 1 x ¾	3.14
MDL-6-5	.5	1¾ x 1 x ¾	3.77
MDL-6-1M	1.0	1¾ x 1¼ x ⅞	4.32
MDL-6-2M	2.0	2 x 2 x ⅞	5.52
MDL-6-3M	3.0	2 x 2 x 1⅛	6.85
MDL-6-4M	4.0	2 x 2 x 1⅜	8.61

85° C. ASTRON TYPE MRF

Metal Cased Metallized Paper Tubulars

ASTRON METALITE Type MRF capacitors are mineral-wax impregnated and filled. They are hermetically sealed in metal tubes with combination neoprene-phenolic end discs. Designed for operation up to 85° C. Type MRF meets MIL thermocycle immersion, vibration and humidity test requirements and offers size reductions up to 75% over equally rated paper-foil capacitors. Type MRF, as listed, is supplied with the capacitor section insulated from the case, and is available also with the section grounded to the case by specifying Type MRG. Both Types MRF and MRG can be supplied with plastic outer sleeve (P) and/or mounting brackets as shown in Variations below.

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

Catalog Number	Cap. Mf.	Dia. x Length	Net Ea.
150 Working Volts D.C.			
MRF-1.5-4M	4.0	1 x 1 15/16	2.55
MRF-1.5-6M	6.0	1 x 1 15/16	3.12
MRF-1.5-8M	8.0	1⅛ x 1 15/16	3.58
MRF-1.5-10M	10.0	1¼ x 1 15/16	4.23
200 Working Volts D.C.			
MRF-2-05	.05	⅜ x ⅞	$ .82
MRF-2-1	.1	7/16 x ⅞	.85
MRF-2-25	.25	½ x ⅞	.94
MRF-2-5	.5	½ x 1⅜	1.00
MRF-2-1M	1.0	.670 x 1⅜	1.24
MRF-2-2M	2.0	.670 x 1⅞	1.53
400 Working Volts D.C.			
MRF-4-03	.03	⅜ x ⅞	.79
MRF-4-05	.05	½ x ⅞	.85
MRF-4-1	.1	½ x 1⅜	.94
MRF-4-25	.25	.670 x 1⅜	1.06
MRF-4-5	.5	.670 x 1⅞	1.18
MRF-4-1M	1.0	¾ x 2⅜	1.47
MRF-4-2M	2.0	1 x 2 7/16	2.12
MRF-4-3M	3.0	1⅛ x 2 7/16	2.82
MRF-4-4M	4.0	1¼ x 2 7/16	3.47
600 Working Volts D.C.			
MRF-6-01	.01	⅜ x ⅞	.79
MRF-6-02	.02	7/16 x ⅞	.85
MRF-6-03	.03	7/16 x ⅞	.88
MRF-6-05	.05	½ x ⅞	.91
MRF-6-1	.1	½ x 1⅜	1.00
MRF-6-2	.2	.670 x 1⅜	1.12
MRF-6-25	.25	.670 x 1⅜	1.18
MRF-6-5	.5	.670 x 1⅞	1.41
MRF-6-1M	1.0	¾ x 2⅜	1.76
MRF-6-2M	2.0	1⅛ x 2 7/16	2.35
MRF-6-3M	3.0	1¼ x 2 7/16	3.12

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE

Circuit 1

	TYPE & DESCRIPTION		Change in Net Price
UNINSULATED BODY Sizes shown in listings	MRF	—Basic type as listed.	
	MRF-Y	—with radial (Y) bracket. Example: MRF-2-1-Y.	+$ .06
	MRF-A	—with tangential (A) soldered-on bracket. Example: MRF-2-1-A.	+ .24
INSULATED BODY Add 1/16" to length and 1/16" to dia.	MRFP	—Basic type, with plastic sleeve (P). Example: MRFP-2-1.	+ .09
	MRFP-Y	—with plastic sleeve (P) and radial (Y) bracket. Example: MRFP-2-1-Y.	+ .15

CAPACITOR SECTION GROUNDED TO CASE

Circuit 3

	TYPE & DESCRIPTION		Change in Net Price
UNINSULATED BODY deduct 1/16" from length shown in listings	MRG	—Basic grounded section unit.	
	MRG-Y	—with radial (Y) bracket. Example: MRG-2-1-Y.	+$ .06
	MRG-A	—with tangential (A) soldered-on bracket. Example: MRG-2-1-A.	+ .24
INSULATED BODY add 1/16" to length and 1/16" to dia. shown in listings	MRGP	—Basic grounded section type with plastic sleeve (P). Example: MRGP-2-1.	+ .09
	MRGP-Y	—with plastic sleeve (P) and radial (Y) bracket. Example: MRGP-2-1-Y.	+ .15

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125° C. ASTRON TYPE MQL

Glass To Metal Sealed Metallized Paper Tubulars

ASTRON METALITE Hy-Met Type MQL features the use of solid thermosetting impregnant for operation at temperatures up to 125° C. These units are supplied in tinned non-ferrous metal cases, hermetically sealed, and are the smallest paper capacitors available for their given ratings. Type MQL is non-inductively wound with one foil grounded to the case and a glass-to-metal seal at one end. For units with capacitor section insulated from case specify Type MQLF which is supplied with glass-to-metal seal terminals at both ends. Both Types MQL and MQLF can be supplied with plastic outer sleeve and/or mounting brackets as listed in Variations below.

Standard Tolerance ± 20%. Can be furnished to closer tolerance on request.

Catalog Number	Cap. Mf.	Dia. x Length	Net Ea.
150 Working Volts D.C.			
MQL-1.5-4M	4.0	1 x 1¾	4.11
MQL-1.5-6M	6.0	1 x 1¾	4.82
MQL-1.5-8M	8.0	1 x 2¼	5.50
200 Working Volts D.C.			
MQL-2-01	.01	.235 x ¾	1.82
MQL-2-022	.022	.235 x ¾	1.85
MQL-2-033	.033	.235 x ¾	1.85
MQL-2-047	.047	.235 x ¾	1.85
MQL-2-05	.05	.235 x ¾	1.85
MQL-2-068	.068	.312 x ¾	1.91
MQL-2-1	.1	.312 x ¾	1.91
MQL-2-15	.15	.312 x 1 1/16	1.94
MQL-2-22	.22	.312 x 1 1/16	2.03
MQL-2-25	.25	.312 x 1 1/16	2.09
MQL-2-33	.33	.400 x 1 1/16	2.09
MQL-2-47	.47	.400 x 1 1/16	2.12
MQL-2-5	.5	.400 x 1 1/16	2.12
MQL-2-68	.68	.500 x 1 1/16	2.19
MQL-2-1M	1.0	.562 x 1 1/16	2.35
MQL-2-2M	2.0	.562 x 1¾	3.50
400 Working Volts D.C.			
MQL-4-01	.01	.235 x ¾	1.85
MQL-4-022	.022	.235 x ¾	1.91
MQL-4-033	.033	.312 x ¾	1.91
MQL-4-047	.047	.312 x 1 1/16	1.94
MQL-4-05	.05	.312 x 1 1/16	1.94
MQL-4-068	.068	.400 x 1 1/16	1.97
MQL-4-1	.1	.400 x 1 1/16	2.00
MQL-4-22	.22	.500 x 1 1/16	2.12
MQL-4-25	.25	.500 x 1 1/16	2.17
MQL-4-33	.33	.562 x 1¼	2.26
MQL-4-47	.47	.562 x 1¾	2.41
MQL-4-5	.5	.562 x 1¾	2.41
MQL-4-68	.68	.670 x 1¾	2.62
MQL-4-1M	1.0	.670 x 2¼	2.70
MQL-4-2M	2.0	1 x 2¼	4.12
600 Working Volts D.C.			
MQL-6-01	.01	.235 x ¾	1.91
MQL-6-022	.022	.312 x ¾	1.94
MQL-6-033	.033	.400 x ¾	1.97
MQL-6-047	.047	.400 x ¾	2.00
MQL-6-05	.05	.400 x ¾	2.00
MQL-6-068	.068	.400 x 1 1/16	2.00
MQL-6-1	.1	.400 x 1 1/16	2.03
MQL-6-15	.15	.500 x 1 1/16	2.15
MQL-6-22	.22	.562 x 1¼	2.23
MQL-6-25	.25	.562 x 1¼	2.38
MQL-6-33	.33	.562 x 1¾	2.55
MQL-6-47	.47	.670 x 1¾	2.64
MQL-6-5	.5	.670 x 1¾	2.64
MQL-6-68	.68	.670 x 2¼	2.64
MQL-6-1M	1.0	.750 x 2¼	3.21
MQL-6-2M	2.0	1 x 2¼	4.56

VARIATIONS AVAILABLE

CAPACITOR SECTION GROUNDED TO CASE

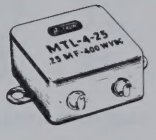
Glass-to-Metal Terminal at one end Circuit 3

		TYPE & DESCRIPTION	Change in Net Price
UNINSULATED BODY Sizes shown in listings	MQL-A	— Basic type as listed. — with tangential (A) soldered-on bracket. Example: MQL-2-1-A.	+$ .24
	MQL-B	— with L-type (B) soldered-on bracket. Example: MQL-2-1-B.	+ .24
	MQLS	— screw neck vertical mounting type. Same ratings as Type MQL. Minimum diameter .400". Example: MQLS-2-1.	+ .47
	MQLV	—Stud base vertical-mounting type. Same ratings and sizes as Type MQL. Example MQLV-2-1.	+ .35
INSULATED BODY Add ⅛" to dia. and length	MQLP	— Basic grounded construction as listed, with plastic outer sleeve (P). Example: MQLP-2-1.	+ .09

CAPACITOR SECTION INSULATED FROM CASE

Glass-to-Metal Terminal at both ends Circuit 1

		TYPE & DESCRIPTION	Change in Net Price
UNINSULATED BODY Add ⅛" to length shown in listings	MQLF	— Basic internally insulated unit	+$ .29
	MQLF-A	— with tangential (A) soldered-on bracket. Example: MQLF-2-1-A.	+ .53
	MQLF-B	— with L type (B) soldered-on bracket. Example: MQLF-2-1-B.	+ .53
	MQLFS	— screw neck vertical-mounting type. Same ratings as MQL. Minimum diameter .400". Example: MQLFS-2-1.	+ .58
INSULATED BODY Add ⅛" to dia. and ⅛" to length shown in listings	MQLFP	— Basic internally insulated unit with plastic outer sleeve (P). Example: MQLFP-2-1.	+ .38



125° C. ASTRON TYPE MTL

Subminiature Bathtub Case Capacitors

ASTRON METALITE Hy-Met TYPE MTL is a unique ASTRON design—the popular, handy bathtub case style in a subminiature 1⅛" x 1" base size with minimum case heights. It is designed especially for all types of miniaturized equipment and tight assemblies to meet extreme minimum weight and size, long life, and high temperature operation requirements. Solid thermosetting impregnant provides high dielectric strength, vastly improved insulation resistance characteristics over conventional metallized paper units, and makes this miniature type suitable for operation up to 125° C. RF characteristics are excellent due to their non-inductive extended foil construction and extremely small capacitor sections. The units are hermetically sealed, have glass-to-metal sealed lug terminals, and meet MIL tests for humidity, thermocycle immersion and vibration.

Catalog Number	Cap. Mf.	L. x W. x H.	Net Ea.
200 Working Volts D.C.			
MTL-2-1	.1	1⅛ x 1 x ½	$2.55
MTL-2-25	.25	1⅛ x 1 x ½	2.73
MTL-2-5	.5	1⅛ x 1 x ½	3.21
MTL-2-1M	1.0	1⅛ x 1 x ½	3.44
MTL-2-2M	2.0	1⅛ x 1 x 11/16	4.35
400 Working Volts D.C.			
MTL-4-1	.1	1⅛ x 1 x ½	3.15
MTL-4-25	.25	1⅛ x 1 x ½	3.26
MTL-4-5	.5	1⅛ x 1 x 11/16	3.47
600 Working Volts D.C.			
MTL-6-1	.1	1⅛ x 1 x ½	3.41
MTL-6-25	.25	1⅛ x 1 x ½	3.47
MTL-6-5	.5	1⅛ x 1 x 11/16	4.14

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

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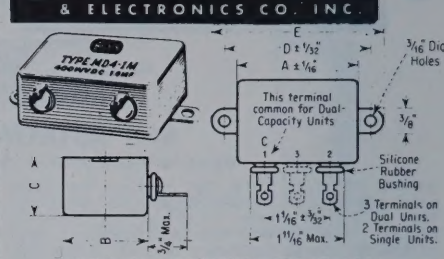


85° C. ASTRON TYPE MD

Metallized Paper Bathtub Capacitors

ASTRON METALITE TYPE MD capacitors, through the use of metallized paper, make available many more high-capacitance ratings than ever before obtainable in bathtub cases. Type MD capacitors are designed for operation at temperatures up to 85° C. They are ideal in noise suppression circuits and similar low impedance applications in aircraft, military and other high quality electronic equipment. Type MD is hermetically sealed and has silicone rubber compression-seal terminals. These capacitors meet rigid MIL tests for moisture resistance, thermocycle immersion and vibration. STANDARD POSITION of terminals is on side as shown. Other terminal positions are available as follows: Top terminals (Type MDT), and bottom terminals (Type MDB).

STANDARD CAPACITANCE TOLERANCE: ±20%. Closer tolerances can be supplied.

CASE DIMENSIONS — In Inches

ASTRON Case Size	A ±1/16	B ±1/16	C −1/8 +1/16	D ±1/32	E ±1/16
A	1¾	1	¾	2⅛	2½
B	1¾	1	⅞	2⅛	2½
F	1¾	1¼	⅞	2⅛	2½
J	2	1¾	⅞	2⅜	2¾
M	2	2	⅞	2⅜	2¾
N	2	2	1	2⅜	2¾
P	2	2	1⅛	2⅜	2¾
R	2	2	1⅜	2⅜	2¾
S	2	2	1½	2⅜	2¾

Catalog Number	Cap. Mf.	ASTRON Case Size	Net Ea.
SINGLE UNITS			
150 Working Volts D.C.			
MD-1.5-4M	4.0	B	3.38
MD-1.5-6M	6.0	J	3.59
MD-1.5-8M	8.0	M	4.94
MD-1.5-10M	10.0	M	5.70
MD-1.5-12M	12.0	N	6.47
MD-1.5-16M	16.0	R	7.94
MD-1.5-18M	18.0	S	8.82
200 Working Volts D.C.			
MD-2-5	.5	A	1.94
MD-2-1M	1.0	A	2.00
MD-2-2M	2.0	A	2.62
400 Working Volts D.C.			
MD-4-25	.25	A	1.97
MD-4-5	.5	A	2.09
MD-4-1M	1.0	B	2.32
MD-4-2M	2.0	J	2.88
MD-4-4M	4.0	P	4.61
MD-4-6M	6.0	S	5.58
600 Working Volts D.C.			
MD-6-1	.1	A	2.06
MD-6-25	.25	A	2.09
MD-6-5	.5	A	2.50
MD-6-1M	1.0	F	2.88
MD-6-2M	2.0	N	3.67
MD-6-3M	3.0	R	4.56
MD-6-4M	4.0	S	5.73
DUAL UNITS			
150 Working Volts D.C.			
MD-1.5-2 x 4M	4.0-4.0	M	5.29
MD-1.5-2 x 6M	6.0-6.0	N	6.76
200 Working Volts D.C.			
MD-2-2 x 1M	1.0-1.0	A	$2.94
MD-2-2 x 2M	2.0-2.0	B	3.70
400 Working Volts D.C.			
MD-4-2 x 5	.5-.5	B	2.55
MD-4-2 x 1M	1.0-1.0	J	3.23
MD-4-2 x 2M	2.0-2.0	P	4.76
600 Working Volts D.C.			
MD-6-2 x 25	.25-.25	A	2.91
MD-6-2 x 5	.5-.5	F	3.35
MD-6-2 x 1M	1.0-1.0	N	3.88

85° C. ASTRON TYPE ADM

Oil-Filled Bathtub Case Capacitors (Mil-C-25A Style CP53, Char. E.)

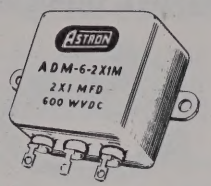
TYPE ADM capacitors are mineral oil impregnated and filled. They are hermetically sealed, designed for operation at temperatures up to 85° C. in all types of commercial and military assemblies—aircraft, marine, mobile, and other severe-service equipment. These units are made to meet Specification MIL-C-25A test requirements for humidity, thermocycle immersion and vibration. Silicone rubber compression-sealed lug terminals are standard construction and provide a completely immersion-proof unit. Type ADM is available in single, dual and triple section units.

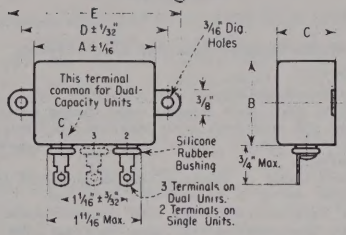
Standard single-section units have two terminals; duals have three terminals (one terminal common). Triple units have three terminals, with case as common. STANDARD POSITION of terminals is on side as shown (MIL-C-25A Style CP53). These capacitors are also available with terminals on top (ASTRON Type ADMT or MIL Style CP54), and bottom terminals (ASTRON Type ADMB or MIL Style CP55).

CAPACITANCE TOLERANCE: ±20% (M). Other tolerances are available. Standard ASTRON units shown in the listings are supplied in MIL Characteristic E (—55°C. to +85°C.). Other characteristics are available; or refer to ASTRON Type ADZ (MIL-C-25A Style CP53, Characteristic K) for units designed for operation from —55°C. to +125°C

* For top or bottom terminals, case size is Q.

† Capacitors of ASTRON manufacture in accordance with Specification MIL-C-25A are indicated by the prefix "AS-" followed by the MIL Style CP designation. Basic Style CP53 (terminals on side) is listed. Make proper change in CP style when ordering terminals on top (CP54) or bottom terminals (CP55).

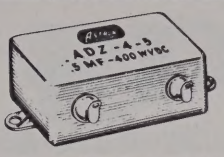




CASE DIMENSIONS — In inches

ASTRON Case Size	A ±1/16	B ±1/16	C +1/16 −1/8	D ±1/32	E ±1/16
C	1 13/16	1	3/4	2 1/8	2 1/2
D	1 13/16	1	7/8	2 1/8	2 1/2
E	1 13/16	1	1	2 1/8	2 1/2
J	2	1 3/4	7/8	2 3/8	2 3/4
L	2	1 1/4	1	2 3/8	2 3/4
N	2	2	1	2 3/8	2 3/4
P	2	2	1 1/4	2 3/8	2 3/4
Q	2	2	1 1/4	2 3/8	2 3/4

ASTRON Catalog Number	†ASTRON Cat. No. based on Spec. MIL-C-25A	Cap. Mf.	ASTRON Case Size	Net Ea.
SINGLE UNITS — Circuit 1				
100 Working Volts D.C.				
ADM-1-1M	AS-CP53B1EB105M	1.0	D	$2.21
ADM-1-2M	AS-CP53B1EB205M	2.0	J	2.91
ADM-1-4M	AS-CP53B1EB405M	4.0	P	3.91
200 Working Volts D.C.				
ADM-2-5	AS-CP53B1EC504M	.5	D	1.94
ADM-2-1M	AS-CP53B1EC105M	1.0	J	2.21
ADM-2-2M	AS-CP53B1EC205M	2.0	N	2.91
400 Working Volts D.C.				
ADM-4-5	AS-CP53B1EE504M	.5	D	1.94
ADM-4-1M	AS-CP53B1EE105M	1.0	J	2.21
600 Working Volts D.C.				
ADM-6-05	AS-CP53B1EF503M	.05	C	1.71
ADM-6-1	AS-CP53B1EF104M	.1	C	1.73
ADM-6-25	AS-CP53B1EF254M	.25	C	1.79
ADM-6-5	AS-CP53B1EF504M	.5	E	1.94
ADM-6-1M	AS-CP53B1EF105M	1.0	L	2.21
ADM-6-2M	AS-CP53B1EF205M	2.0	P*	2.91
1000 Working Volts D.C.				
ADM-10-05	AS-CP53B1EG503M	.05	C	1.79
ADM-10-1	AS-CP53B1EG104M	.1	C	1.85
ADM-10-25	AS-CP53B1EG254M	.25	D	1.91
ADM-10-5	AS-CP53B1EG504M	.5	J	2.06
ADM-10-1M	AS-CP53B1EG105M	1.0	P*	2.56
DUAL UNITS — Circuit 4				
600 Working Volts D.C.				
ADM-6-2x05	AS-CP53B4EF503M	.05-.05	C	2.12
ADM-6-2x1	AS-CP53B4EF104M	.1-.1	C	2.65
ADM-6-2x25	AS-CP53B4EF254M	.25-.25	E	2.18
ADM-6-2x5	AS-CP53B4EF504M	.5-.5	L	2.21
ADM-6-2x1M	AS-CP53B4EF105M	1.0-1.0	P*	3.09
1000 Working Volts D.C.				
ADM-10-2x05	AS-CP53B4EG503M	.05-.05	C	2.26
ADM-10-2x1	AS-CP53B4EG104M	.1-.1	D	2.32
ADM-10-2x25	AS-CP53B4EG254M	.25-.25	J	2.44
ADM-10-2x5	AS-CP53B4EG504M	.5-.5	P*	3.18
TRIPLE UNITS — Circuit 5				
400 Working Volts D.C.				
ADM-4-3x5	AS-CP53B5EE504M	.5-.5-.5	P	3.38
600 Working Volts D.C.				
ADM-6-3x05	AS-CP53B5EF503M	.05-.05-.05	C	2.23
ADM-6-3x1	AS-CP53B5EF104M	.1-.1-.1	D	2.44
ADM-6-3x25	AS-CP53B5EF254M	.25-.25-.25	J	2.79
ADM-6-3x5	AS-CP53B5EF504M	.5-.5-.5	P*	3.38
1000 Working Volts D.C.				
ADM-10-3x05	AS-CP53B5EG503M	.05-.05-.05	C	2.50
ADM-10-3x1	AS-CP53B5EG104M	.1-.1-.1	J	2.71
ADM-10-3x25	AS-CP53B5EG254M	.25-.25-.25	P*	3.21



125° C. ASTRON TYPE ADZ

Bathtub Case Capacitors (Mil.-C-25A Style CP53 Char. K.)

ASTRON METEOR TYPE ADZ bathtub capacitors are designed for high temperature operation up to 125° C. without derating. They are recommended for general applications in all types of commercial, military and other equipment where compact capacitors for high temperature operation are required. Exceptional capacitance stability over the entire range of —65° C. to +125° C. is achieved by the use of ASTRON-developed X-250 impregnant. High insulation resistance, low power factor and low resonance loss are other distinguishing qualities of METEOR Type ADZ capacitors. These capacitors meet MIL test requirements for humidity, thermocycle immersion and vibration. Glass-to-metal lug terminals provide a positive immersionproof seal. STANDARD POSITION of terminals is on side as shown (MIL-C-25A Style CP53). Available also with terminals on top (ASTRON Type ADZT or MIL Style CP54), and bottom (ASTRON Type ADZB or MIL Style CP55).

†Capacitors listed in this column are units of ASTRON manufacture in accordance with Specification MIL-C-25A, Characteristic K (—55° C. to +125° C.). They are indicated by the prefix "AS-" followed by MIL Style CP designation.

ASTRON Catalog Number	†ASTRON Cat. No. based on Spec. MIL-C-25A	Cap. Mf.	L.	W.	H.	Net Ea.
200 Working Volts D.C.						
ADZ-2-5	———	.5	1 13/16	x 1	x 7/8	$3.21
ADZ-2-1M	———	1.0	2	x 1 3/4	x 7/8	3.44
ADZ-2-2M	———	2.0	2	x 2	x 1	4.35
400 Working Volts D.C.						
ADZ-4-05	AS-CP53B1KE503M	.05	1 13/16	x 1	x 3/4	2.64
ADZ-4-1	AS-CP53B1KE104M	.1	1 13/16	x 1	x 3/4	2.82
ADZ-4-25	AS-CP53B1KE254M	.25	1 13/16	x 1	x 3/4	3.06
ADZ-4-5	AS-CP53B1KE504M	.5	1 13/16	x 1	x 7/8	3.47
ADZ-4-1M	AS-CP53B1KE105M	1.0	2	x 1 3/4	x 7/8	4.00
600 Working Volts D.C.						
ADZ-6-05	———	.05	1 13/16	x 1	x 3/4	3.00
ADZ-6-1	———	.1	1 13/16	x 1	x 3/4	3.41
ADZ-6-25	———	.25	1 13/16	x 1	x 3/4	3.47
ADZ-6-5	———	.5	1 13/16	x 1	x 1	4.15
ADZ-6-1M	———	1.0	2	x 1 3/4	x 1	4.67
ADZ-6-2M	———	‡2.0	2	x 2	x 1 1/8	5.58

†Capacitors listed in this column are units of ASTRON manufacture in accordance with Specification MIL-C-25A, Characteristic K (—55°C. to +125°C.). They are indicated by the prefix "AS-" followed by MIL Style CP designation.

CAPACITANCE TOLERANCE: ±20% (M). Other tolerances are available.

‡Case height (C dimension) is 1¼" for top terminals (ADZT) or bottom terminals (ADZB).

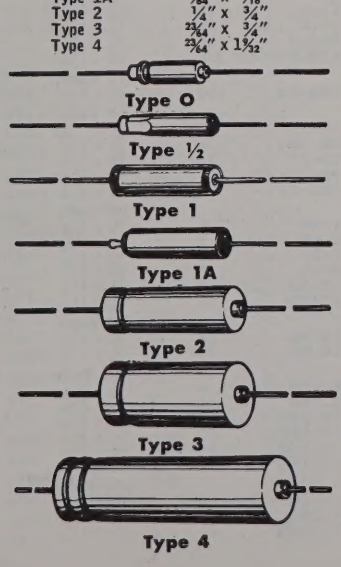
BARCO

Ultra-Miniature Electrolytics

Smallest hermetically sealed electrolytic capacitors.

SIZE CODE

	Dia. x L.
Type 0	1/8" x 15/32"
Type ½	1/8" x 5/8"
Type 1	11/64" x 9/16"
Type 1A	11/64" x 3/4"
Type 2	1/4" x 3/4"
Type 3	23/64" x 3/4"
Type 4	23/64" x 1 9/32"



CATALOG NO.	CAPACITY §	WORKING VOLTAGE	Net Ea.
Type 0			
P3-1.25	1-1/4 mfd.	3 v dc	$ .59
PS3-1.5 *I*	1-1/2 mfd.	3 v dc	.59
PS4-4 *I*	4 mfd.	4 v dc	.59
PS5-1 *I*	1 mfd.	5 v dc	.59
P6-1	1 mfd.	6 v dc	.59
P25-.25	1/4 mfd.	25 v dc	.59
P25-.4	4/10 mfd.	25 v dc	.59
P70-.15	15/100 mfd.	70 v dc	.59
Type ½			
PT1.5-6	6 mfd.	1½ v dc	.59
PT4-4	4 mfd.	4 v dc	.59
PT8-2	2 mfd.	8 v dc	.59
PT12-1	1 mfd.	12 v dc	.59
PT25-.25	1/4 mfd.	25 v dc	.59
Type 1			
PS3-10 *I*	10 mfd.	3 v dc	.44
PS6-3 *I*	3 mfd.	6 v dc	.44
P6-8	8 mfd.	6 v dc	.44
PS8-5 *I*	5 mfd.	8 v dc	.44
PS20-2 *I*	2 mfd.	20 v dc	.44
P25-2.5 I	2-1/2 mfd.	25 v dc	.44
P70-1	1 mfd.	70 v dc	.44

CATALOG NO.	CAPACITY §	WORKING VOLTAGE	Net Ea.
Type 1A			
PT3-10	10 mfd.	3 v dc	.44
PT6-2	2 mfd.	6 v dc	.44
PT6-4	4 mfd.	6 v dc	.44
PT6-8	8 mfd.	6 v dc	.44
PT12-2	2 mfd.	12 v dc	.44
Type 2			
PT3-32	32 mfd.	3 v dc	.44
P3-40 I	40 mfd.	3 v dc	.44
P6-25	25 mfd.	6 v dc	.44
P12-16	16 mfd.	12 v dc	.44
P25-8 I	8 mfd.	25 v dc	.44
P40-5	5 mfd.	40 v dc	.44
P70-3	3 mfd.	70 v dc	.44
Type 3			
P3-100	100 mfd.	3 v dc	.59
P6-80	80 mfd.	6 v dc	.59
P12-50	50 mfd.	12 v dc	.59
P25-25	25 mfd.	25 v dc	.59
P40-16	16 mfd.	40 v dc	.59
P70-10	10 mfd.	70 v dc	.59
Type 4			
P6-160	60 mfd.	6 v dc	.73
P25-50	50 mfd.	25 v dc	.73
P40-30	30 mfd.	40 v dc	.73
P70-20	20 mfd.	70 v dc	.73

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CORNELL-DUBILIER
Sun Radio & ELECTRONICS CO. INC.

"Blue Beaver" Electrolytic Tubulars

CD "Blue Beavers" have become the service industry's most popular tubular electrolytic—being DESIGNED EXPRESSLY AND EXCLUSIVELY FOR SERVICE REPLACEMENT APPLICATIONS. Type BR is the compact unit in *aluminum can with cardboard outer sleeve*. Fits neatly into the cramped quarters of a chassis—self-supported by means of rigid tinned copper leads. The larger sizes may be further supported by means of a metal strap. NEGATIVE TERMINAL IS GROUNDED TO CAN.

TEMPERATURE RANGE—to +85°C except 500 V. D.C., to +65°C.

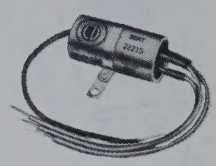
BR Cat. No.	Cap. Mfd.	*Can Size—Inches Diam. x Length	Net Price
		25 V. D.C.	
BR 102	10	5/8 x 1 1/16	$ .60
BR 202	20	5/8 x 1 1/16	.60
BR 252	25	5/8 x 1 1/16	.60
BR 502	50	5/8 x 1 1/16	.66
		50 V. D.C.	
BR 550	5	5/8 x 1 1/16	.60
BR 103	10	5/8 x 1 1/16	.60
BR 203	20	5/8 x 1 1/16	.60
BR 253	25	5/8 x 1 1/16	.63
BR 503	50	5/8 x 1 11/16	.72
		150 V. D.C.	
BR 415	4	5/8 x 1 1/16	.60
BR 815	8	5/8 x 1 1/16	.63
BR 1015	10	5/8 x 1 1/16	.63
BR 1215	12	5/8 x 1 7/16	.66
BR 1615	16	5/8 x 1 7/16	.69
BR 2015	20	5/8 x 1 7/16	.72
BR 2515	25	3/4 x 1 7/16	.75
BR 3015	30	3/4 x 1 7/16	.78
BR 4015	40	3/4 x 1 11/16	.81
BR 5015	50	7/8 x 1 11/16	.84
BR 6015	60	7/8 x 2	.90
BR 8015	80	7/8 x 2	.96
BR 10015	100	1 x 2 1/2	1.05
BR 15015	150	1 x 3	1.14
		250 V. D.C.	
BR 425	4	5/8 x 1 1/16	.60
BR 825	8	5/8 x 1 7/16	.69
BR 1225	12	5/8 x 1 11/16	.75
BR 1625	16	3/4 x 1 11/16	.78
BR 2025	20	3/4 x 1 11/16	.81
BR 3025	30	7/8 x 1 11/16	.87
BR 4025	40	7/8 x 2	.93
BR 5025	50	1 x 2	1.02
BR 6025	60	1 x 2 1/2	1.08
		350 V. D.C.	
BR 435	4	5/8 x 1 7/16	.63
BR 835	8	5/8 x 1 11/16	.72
BR 1235	12	3/4 x 1 11/16	.78
BR 1635	16	7/8 x 1 11/16	.84
BR 2035	20	7/8 x 1 11/16	.87
BR 3035	30	1 x 2	.99
BR 4035	40	1 x 2 1/2	1.05
BR 5035	50	1 x 2 1/2	1.11
		450 V. D.C.	
BR 145	1	5/8 x 1 1/16	.66
BR 245	2	5/8 x 1 1/16	.66
BR 445	4	5/8 x 1 7/16	.69
BR 845	8	3/4 x 1 7/16	.75
BR 1045	10	3/4 x 1 11/16	.78
BR 1245	12	3/4 x 1 11/16	.81
BR 1645	16	7/8 x 2	.84
BR 2045	20	7/8 x 2	.93
BR 3045	30	1 x 2 1/2	1.02
		450 V. D.C.	
BR 4045	40	1 x 2 1/2	1.08
BR 6045	60	1 3/8 x 2 3/4	1.41
BR 8045	80	1 3/8 x 3 1/8	1.68
		500 V. D.C.	
BR 450	4	5/8 x 1 11/16	.72
BR 850	8	3/4 x 1 11/16	.78
BR 1250	12	7/8 x 2	.84
BR 1650	16	1 x 2	.90
BR 2050	20	1 x 2	.96
BR 3050	30	1 x 2 1/2	1.05

HIGH VOLTAGE TUBULAR ELECTROLYTICS

TEMPERATURE RANGE to 85 C.

BRHV Cat. No.	Cap. Mfd.	OVERALL Size—Inches Diam. x Length	Net Price
		500 D.C. W. Volts	
BRHV 850	8	13/16 x 3 5/16	$ .78
BRHV 1050	10	13/16 x 3 5/16	.81
BRHV 1250	12	15/16 x 3 5/16	.84
BRHV 1650	16	1 1/16 x 3 5/16	.90
		600 D.C. W. Volts	
BRHV 608	8	13/16 x 3 5/16	.84
BRHV 610	10	15/16 x 3 5/16	.87
BRHV 612	12	1 1/16 x 3 5/16	.90
BRHV 616	16	1 1/16 x 3 5/16	.99
		700 D.C. W. Volts	
BRHV 708	8	15/16 x 3 5/16	.90
BRHV 710	10	1 1/16 x 3 5/16	.93
BRHV 712	12	1 1/16 x 3 11/16	.96
BRHV 716	16	1 1/16 x 4 5/16	1.05

*For Overall Size add 1/16" to Diam. and 3/16" to Length.



Multi-Section Tubular Electrolytics

Featuring—

- Direct-to-terminal internal lead construction reduces possibility of shorts. (Pure aluminum wires crimped securely together with outer leads within aluminum stud terminals.)
- New high-insulation vinylite covered leads—generous 7 inches long.
- Sections sealed in aluminum tube for protection against moisture getting in, or electrolyte drying out.
- Wax impregnated cardboard outer insulation sleeve.
- Rubber diaphragm-type vent insures ideal vent action under all conditions.
- **IDEAL FOR OPERATION AT TEMPERATURES UP TO 85°C.**

BBRD—Dual Common Negative

BBRD Cat. No.	Cap. Mfd.	D.C. W. Volts	Can Size†—Ins. Dia. x Lgth.	Net Price
BBRD 2202	20-20	25	3/4 x 1 1/16	$ .84
BBRD 115	10-10	50	3/4 x 1 1/16	.84
BBRD 2115	20-10	150	3/4 x 1 7/16	.93
BBRD 2215	20-20	150	3/4 x 1 11/16	.99
BBRD 3215	30-20	150	7/8 x 1 11/16	1.02
BBRD 3315	30-30	150	7/8 x 1 11/16	1.08
BBRD 4215	40-20	150	7/8 x 1 11/16	1.05
BBRD 4315	40-30	150	7/8 x 2	1.08
BBRD 4415	40-40	150	7/8 x 2	1.11
BBRD 5315	50-30	150	7/8 x 2	1.17
BBRD 5515	50-50	150	1 x 2	1.26
BBRD 8415	80-40	150	1 x 2 3/16	1.35
BBRD 16825	16-8	250	3/4 x 2	1.02
BBRD 16D25	16-16	250	7/8 x 2	1.08
BBRD 2225	20-20	250	1 x 1 11/16	1.11
BBRD 7V225	75-20	250	1 x 3	1.56
BBRD 8D45	8-8	450	7/8 x 1 11/16	1.02
BBRD 16845	16-8	450	1 x 2 3/16	1.20
BBRD 16D45	16-16	450	1 x 2 1/2	1.35
BBRD 2245	20-20	450	1 x 3	1.50
BBRD 4445	40-40	450	1 x 4 1/16	2.04

BBRT—Triple-Common Negative

BBRT Cat. No.	Cap. Mfd.	D.C. W. Volts	Can† Size—Inches Dia. x Lgth.	Net Price
BBRT 22215	20-20-20	150	7/8 x 1 11/16	$1.32
BBRT 32V215	30-25-20	150	7/8 x 2	1.35
BBRT 33315	30-30-30	150	1 x 2	1.41
BBRT 42215	40-20-20	150	1 x 1 11/16	1.35
BBRT 43215	40-30-20	150	1 x 2	1.41
BBRT 44215	40-40-20	150	1 x 2	1.41
BBRT 44415	40-40-40	150	1 x 2 3/16	1.47
BBRT 2215C	20-20, 20	150, 25	7/8 x 1 11/16	1.23
BBRT 3315C	30-30, 20	150, 25	7/8 x 2	1.32
BBRT 4215C	40-20, 20	150, 25	1 x 1 11/16	1.29
BBRT 4315C	40-30, 20	150, 25	1 x 1 11/16	1.32
BBRT 4415C	40-40, 20	150, 25	1 x 1 11/16	1.35
BBRT 4415X25	40-40, 25	0150, 10	1 x 2 3/16	1.56
BBRT 5315C	50-30, 20	150, 25	1 x 1 11/16	1.41
BBRT 5515C	50-50, 20	150, 25	1 x 2 3/16	1.50
BBRT 8415C	80-40, 20	150, 25	1 x 2 1/2	1.59
BBRT 3215C10	30-20, 100	150, 25	1 x 2	1.41
BBRT 5315X20	50-30, 200	150, 10	1 x 2 3/16	1.53
BBRT 5315C10	50-30, 100	150, 25	1 x 2 3/16	1.47
BBRT 8215C10	80-20, 100	150, 25	1 x 2 1/2	1.65
BBRT 2225C	20-20, 20	250, 25	1 x 2	1.35
BBRT 4225C	40-20, 20	250, 25	1 x 2 3/16	1.53
BBRT 4425C	40-40, 20	250, 25	1 x 2 11/16	1.74
BBRT 7V4125	75-40-10	250	1 1/8 x 3	2.07
BBRT 16T45	16-16-16	450	1 1/8 x 3	1.86
BBRT 2245C	20-20, 20	450, 25	1 x 3	1.74

BBRQ—Quadruple-Common Negative

BBRQ Cat. No	Cap. Mfd.	D.C. W. Volts	Can† Size—Inches Dia. x Lgth.	Net Price
BBRQ 33215C	30-30-20, 20	150, 25	1 x 2	$1.74
BBRQ 42215C	40-20-20, 150	20, 25	1 x 2	1.71
BBRQ 53215C	50-30-20, 150	20, 25	1 x 2 1/2	1.83
BBRQ 44315C	40-40-30, 150	20, 25	1 x 2 1/2	1.80
BBRQ 55515C	50-50-50, 150	20, 25	1 x 3	2.07
BBRQ 22245C	20-20-20, 20	450, 25	1 1/8 x 3 9/16	2.43

†For OVERALL size on BBRD, BBRT and BBRQ, add 1/16" to Diam. and 3/16" to Length.

High Capacity Low Voltage Electrolytic Tubulars

BRH compact tubular electrolytic capacitors are widely employed in portable radio power rectifying circuits, electric fence devices, telephone and D.C. timing circuits. Hermetically sealed in pure aluminum cans with an external cardboard insulating sleeve, these units are provided with metal mounting strap and bare wire leads for convenient wiring into any circuit assembly.

TEMPERATURE RANGE to +85°C.

BRH Cat No.	Cap. Mfd.	Can† Size—Inches Diam. x Length	Net Price
		6 D.C. W. Volts	
BRH 601	100	3/8 x 1 1/16	$ .72
BRH 6025	250	5/8 x 1 7/16	.81
BRH 605	500	3/4 x 1 11/16	.93
BRH 610	1000	7/8 x 2	1.14
BRH 620	2000	1 x 2 1/2	1.38
		12 D.C. W. Volts	
BRH 121	100	5/8 x 1 1/16	.72
BRH 1225	250	3/4 x 1 11/16	.87
BRH 125	500	7/8 x 2	1.02
BRH 1210	1000	1 x 2	1.35
BRH 1220	2000	1 x 3	1.59
		15 D.C. W. Volts	
BRH 151	100	5/8 x 1 1/16	.73
BRH 1525	250	3/4 x 1 11/16	.93
BRH 155	500	7/8 x 2	1.05
BRH 1510	1000	1 x 2	1.38
BRH 1520	2000	1 x 3	1.92
		25 D.C. W. Volts	
BRH 251	100	5/8 x 1 7/16	.81
BRH 2525	250	7/8 x 1 11/16	1.02
BRH 255	500	1 x 2	1.38
		50 D.C. W. Volts	
BRH 501	100	3/4 x 2	.84
BRH 5015	150	7/8 x 2	.93
BRH 5025	250	1 x 2	1.05
BRH 5050	500	1 x 3	1.44

†For Overall Size add 1/16" to Diam. and 3/16" to Length.

Miniature Electrolytic Tubulars

Type BBR "BLUE BEAVERS," popular tubular electrolytic , are especially popular for those cramped and limited space installations in television receivers, hearing aids, miniature radios and other small assemblies. They are hermetically sealed *in tubular aluminum containers* and ideally suited to meet requirements in low voltage circuits. NEGATIVE TERMINAL IS GROUNDED TO CAN.

TEMPERATURE RANGE—to 85 C.

BBR Cat. No.	Cap. Mfd.	Can Size—Inches Diam. x Length	Net Price
		3 Volts	
BBR 25-3	25	3/8 x 1 1/16	$ .51
BBR 50-3	50	3/8 x 1 5/16	.57
		6 Volts	
BBR 5-6	5	3/8 x 1 1/16	.48
BBR 25-6	25	3/8 x 1 1/16	.51
BBR 50-6	50	3/8 x 1 5/16	.57
BBR 100-6	100	1/2 x 1 5/16	.72
BBR 250-6	250	1/2 x 1 7/16	.81
		15 Volts	
BBR 100-15	100	1/2 x 1 1/16	.75
		25 Volts	
BBR 10-25	10	3/8 x 1 1/16	.60
BBR 20-25	20	3/8 x 1 1/16	.60
BBR 25-25	25	3/8 x 1 1/16	.60
BBR 50-25	50	1/2 x 1 1/16	.66
BBR 100-25	100	1/2 x 1 7/16	.81
		50 Volts	
BBR 1-50	1	3/8 x 1 1/16	.54
BBR 2-50	2	3/8 x 1 1/16	.54
BBR 4-50	4	3/8 x 1 1/16	.60
BBR 5-50	5	3/8 x 1 1/16	.60
BBR 10-50	10	3/8 x 1 1/16	.60
BBR 25-50	25	1/2 x 1 1/16	.63
		90 Volts	
BBR 10-90	10	1/2 x 1 1/16	.66
BBR 16-90	16	1/2 x 1 7/16	.66
		150 Volts	
BBR 4-150	4	3/8 x 1 1/16	.60
BBR 8-150	8	1/2 x 1 1/16	.63
BBR 10-150	10	1/2 x 1 1/16	.63
BBR 12-150	12	1/2 x 1 1/16	.66
BBR 16-150	16	1/2 x 1 7/16	.69
BBR 20-150	20	1/2 x 1 7/16	.72
		250 Volts	
BBR 4-250	4	1/2 x 1 1/16	.60
BBR 8-250	8	1/2 x 1 7/16	.69
BBR 12-250	12	1/2 x 1 7/16	.75

Molded Tubular Capacitors
"The Cub"

The Cornell-Dubilier "CUB" is an *outstandingly superior* molded tubular capacitor unequaled by any molded tubular heretofore developed.
The "CUB" possesses characteristics that will meet the wide and demanding applications found in critical industrial, military and experimental electronic equipment.

TEMP. RANGE: HT Compound —40°C to +90°C
Dykanol "C" —55°C to +100°C

CUB Cat. No.	Cap. Mfd.	Size—Inches Dia. x Length	Net Price
		600 V. D.C.	
CUB 6T1	.0001	3/8 x 1	.15
CUB 6T25	.00025	3/8 x 1	.15
CUB 6T4	.0004	3/8 x 1	.15
CUB 6T5	.0005	3/8 x 1	.15
CUB 6D1	.001	3/8 x 1	.15
CUB 6D15	.0015	3/8 x 1	.15
CUB 6D2	.002	3/8 x 1	.15
CUB 6D22	.0022	3/8 x 1	.15
CUB 6D3	.003	3/8 x 1	.15
CUB 6D4	.004	3/8 x 1	.15
CUB 6D47	.0047	3/8 x 1	.15
CUB 6D5	.005	3/8 x 1	.15
CUB 6D6	.006	7/16 x 1 1/4	.15
CUB 6D68	.0068	7/16 x 1 1/4	.18
CUB 6S1	.01	7/16 x 1 1/4	.18
CUB 6S15	.015	7/16 x 1 1/4	.18
CUB 6S2	.02	7/16 x 1 1/4	.18
CUB 6S22	.022	7/16 x 1 1/4	.18
CUB 6S3	.03	7/16 x 1 1/4	.21
CUB 6S4	.04	9/16 x 1 1/2	.21
CUB 6S47	.047	9/16 x 1 1/2	.24
CUB 6S5	.05	9/16 x 1 1/2	.24
CUB 6S6	.06	11/16 x 1 7/8	.24
CUB 6P1	.1	11/16 x 1 7/8	.27
CUB 6P25	.25	3/4 x 2 1/4	.33
ST 6P5	.5	1 x 2 1/8	.48

Steatite-Cased Tubular Capacitors

C-D "BUDROC" capacitors are made with non-inductive paper and extended foil elements housed in the finest grade ceramic (steatite) tubes with Polykane end-seals. "BUDROCS" are designed and especially recommended for *manufacturing* applications. Except for the C-D molded tubular "CUB", the C-D "BUDROC" surpasses the performance of any molded tubular unit available.

TEMPERATURE RANGE:

"BUDROC" capacitors rated up to and including 400 VDCW are impregnated with high quality HT compound (—40°C to +90°C). Units rated above 400 volts VDCW are impregnated with C-D Vikane (—55°C to +100°C).

ST Cat. No.	Capacity Mfd.	Size—Inches D x L	Net Price
		600 VDCW	
ST 6T5	.0005	5/16 x 1	$.15
ST 6D1	.001	5/16 x 1	.15
ST 6D15	.0015	5/16 x 1	.15
ST 6D2	.002	5/16 x 1	.15
ST 6D22	.0022	5/16 x 1	.15
ST 6D3	.003	5/16 x 1	.15
ST 6D33	.0033	5/16 x 1	.15
ST 6D4	.004	5/16 x 1	.15
ST 6D47	.0047	5/16 x 1	.15
ST 6D5	.005	3/8 x 1 1/4	.15
ST 6D68	.0068	3/8 x 1 1/4	.18
ST 6S1	.01	3/8 x 1 1/4	.18
ST 6S15	.015	3/8 x 1 1/4	.18
ST 6S2	.02	7/16 x 1 1/4	.18
ST 6S22	.022	7/16 x 1 1/4	.18
ST 6S25	.025	7/16 x 1 1/4	.21
ST 6S3	.03	7/16 x 1 1/4	.21
ST 6S4	.04	1/2 x 1 1/2	.21
ST 6S47	.047	1/2 x 1 1/2	.24
ST 6S5	.05	1/2 x 1 1/2	.24
ST 6S68	.068	11/16 x 1 7/8	.27
ST 6P1	.10	11/16 x 1 7/8	.27
ST 6P25	.25	15/16 x 2 1/4	.33
ST 6P5	.50	1 x 2 1/8	.48

Molded Mylar Tubulars

MINIATURE STEATITE-CASED CAPACITORS

Identical in appearance to BUDROC

Cornell-Dubilier "MINIROC" type STM series capacitors are high quality tubular, units in non-metallic (steatite) cases. They have exceptionally HIGH INSULATION RESISTANCE and are fully protected against moisture. Operating temperature ranges from —55°C. to 130°C. with no voltage derating required. These unusually fine characteristics are due to the use of MYLAR* Polyester Film dielectric, finest quality steatite cases, Polykane end-fill and C-D's painstaking processing. The C-D Polykane end-fill tightly bonds to the lead wires and steatite tubes preventing the entry of any moisture while at the same time locking the capacitor section and lead wires in place. Polykane will not soften, melt or flow at any operating temperature.

*DU PONT trade mark.

Temperature Range: —55°C to +130°C.

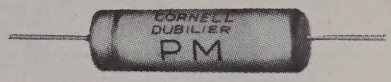
STM Cat. No.	Cap. Mfd.	Dimensions—Inches Diameter x Length	Net Price
		600 V. D.C.W.	
STM 6D1	.001	.170 x 3/4	1.08
STM 6D15	.0015	.190 x 3/4	1.08
STM 6D22	.0022	.190 x 1 1/16	1.08
STM 6D33	.0033	.190 x 1 1/16	1.08
STM 6D47	.0047	1/4 x 1 1/16	1.08
STM 6D68	.0068	1/4 x 1 1/16	1.08
STM 6S1	.01	5/16 x 1 1/16	1.14
STM 6S15	.015	5/16 x 1 1/16	1.14
STM 6S22	.022	3/8 x 1 1/16	1.20
STM 6S33	.033	3/8 x 1 1/4	1.26
STM 6S47	.047	7/16 x 1 1/4	1.38
STM 6S68	.068	1/2 x 1 1/2	1.44
STM 6P1	.10	9/16 x 1 1/2	1.50

"Tiny Chief" Molded Plastic Capacitors

Cornell-Dubilier "TINY-CHIEFS" are small size all purpose capacitors molded in an extra hard thermosetting plastic which has all the qualities and electrical characteristics required for long lasting all-around satisfaction.

TEMPERATURE RANGE: —40°C. to +85°C.

PJ Cat. No.	Cap. Mfd.	Size—Inches Dia. & Length	Net Price
		200 V. D.C.	
PJ 2S2	.02	5/16 x 1	$.15
PJ 2S5	.05	3/8 x 1 1/4	.15
PJ 2P1	.1	7/16 x 1 1/4	.21
PJ 2P25	.25	3/8 x 1 7/8	.27
PJ 2P5	.5	5/8 x 1 7/8	.36
PJ 2W1	1.0	3/4 x 2 1/4	.54
		400 V. D.C.	
PJ 4S1	.01	5/16 x 1	.15
PJ 4S2	.02	3/8 x 1 1/4	.15
PJ 4S22	.022	3/8 x 1 1/4	.15
PJ 4S47	.047	7/16 x 1 1/4	.18
PJ 4S5	.05	7/16 x 1 1/4	.18
PJ 4S68	.068	1/2 x 1 1/2	.21
PJ 4P1	.1	1/2 x 1 1/2	.21
PJ 4P15	.15	5/8 x 1 7/8	.21
PJ 4P22	.22	5/8 x 1 7/8	.24
PJ 4P25	.25	5/8 x 1 7/8	.27
PJ 4P5	.5	3/4 x 2 1/4	.36
PJ 4W1	1.0	1 x 2 1/8	.54
		600 V. D.C.	
PJ 6T25	.00025	5/16 x 1	.15
PJ 6T5	.0005	5/16 x 1	.15
PJ 6D1	.001	5/16 x 1	.15
PJ 6D15	.0015	5/16 x 1	.15
PJ 6D2	.002	5/16 x 1	.15
PJ 6D22	.0022	5/16 x 1	.15
PJ 6D3	.003	5/16 x 1	.15
PJ 6D33	.0033	5/16 x 1	.15
PJ 6D4	.004	5/16 x 1	.15
PJ 6D47	.0047	5/16 x 1	.15
PJ 6D5	.005	5/16 x 1	.15
PJ 6D6	.006	3/8 x 1 1/4	.15
PJ 6D68	.0068	3/8 x 1 1/4	.18
PJ 6S1	.01	3/8 x 1 1/4	.18
PJ 6S15	.015	3/8 x 1 1/4	.18
PJ 6S2	.02	7/16 x 1 1/4	.18
PJ 6S22	.022	7/16 x 1 1/4	.18
PJ 6S25	.025	7/16 x 1 1/4	.18
PJ 6S3	.03	7/16 x 1 1/4	.21
PJ 6S4	.04	1/2 x 1 1/2	.21
PJ 6S47	.047	1/2 x 1 1/2	.24
PJ 6S5	.05	1/2 x 1 1/2	.24
PJ 6S6	.06	5/8 x 1 7/8	.24
PJ 6S68	.068	5/8 x 1 7/8	.24
PJ 6P1	.1	5/8 x 1 7/8	.27
PJ 6P25	.25	3/4 x 2 1/4	.33
PJ 6P5	.5	1 x 2 1/8	.48



CORNELL-DUBILIER

MYLAR* Polyester Film
MOLDED TUBULAR CAPACITORS

Cornell-Dubilier's new PM SERIES of molded tubular capacitors are designed to meet the need for a rugged, high-temperature MOLDED unit. These are fabricated with the Du Pont Company's latest new dielectric material, "MYLAR" which maintains excellent electrical characteristics at temperatures up to +130°C. Over the temperature range of from —55°C to +100°C full rated voltage can be applied, and to +130°C voltage is derated only to 75%. Insulation resistance values are exceptionally high at any operating temperature and capacitance variation with thermal change is relatively small. The dielectric absorption and the power factor of the new capacitors is unusually low.

Non-inductive construction is employed with lead wires securely soldered to the extended foils, insuring low resistance connections and low radio frequency impedance. The durable thermosetting plastic case† construction holds copperweld lead wires and sections firmly in place to withstand extremes of handling, soldering temperatures, vibration and shock.

PM Cat. No.	Cap. Mfd.	Dimensions—Inches Diameter x Length	Net Price
		400 V. D.C.W.	
PM 4S1	.010	5/16 x 1	$1.08
PM 4S12	.012	3/8 x 1 1/4	1.08
PM 4S15	.015	3/8 x 1 1/4	1.08
PM 4S18	.018	3/8 x 1 1/4	1.08
PM 4S22	.022	7/16 x 1 1/4	1.14
PM 4S27	.027	7/16 x 1 1/4	1.14
PM 4S33	.033	7/16 x 1 1/4	1.14
PM 4S39	.039	7/16 x 1 1/4	1.20
PM 4S47	.047	7/16 x 1 1/4	1.20
PM 4S56	.056	1/2 x 1 1/2	1.26
PM 4S68	.068	1/2 x 1 1/2	1.26
PM 4S82	.082	1/2 x 1 1/2	1.32
PM 4P1	.10	1/2 x 1 1/2	1.38
PM 4P12	.12	9/16 x 1 11/16	1.38
PM 4P15	.15	9/16 x 1 11/16	1.44
PM 4P18	.18	5/8 x 1 7/8	1.44
PM 4P22	.22	5/8 x 1 7/8	1.50
PM 4P27	.27	5/8 x 1 7/8	1.56
PM 4P33	.33	11/16 x 1 15/16	1.62
PM 4P39	.39	3/4 x 2 1/4	1.68
PM 4P47	.47	3/4 x 2 1/4	1.74
PM 4P56	.56	3/4 x 2 1/4	1.86
PM 4P68	.68	1 x 2 1/8	1.98
PM 4P82	.82	1 x 2 1/8	2.10
PM 4W1	1.00	1 x 2 1/8	2.28
		600 V. D.C.W.	
PM 6T5	.0005	5/16 x 1	$1.08
PM 6D1	.0010	5/16 x 1	1.08
PM 6D12	.0012	5/16 x 1	1.08
PM 6D15	.0015	5/16 x 1	1.08
PM 6D18	.0018	5/16 x 1	1.08
PM 6D22	.0022	5/16 x 1	1.08
PM 6D27	.0027	5/16 x 1	1.08
PM 6D33	.0033	5/16 x 1	1.08
PM 6D39	.0039	5/16 x 1	1.08
PM 6D47	.0047	3/8 x 1 1/4	1.08
PM 6D56	.0056	3/8 x 1 1/4	1.08
PM 6D68	.0068	3/8 x 1 1/4	1.08
PM 6D82	.0082	3/8 x 1 1/4	1.08
PM 6S1	.010	3/8 x 1 1/4	1.14
PM 6S12	.012	3/8 x 1 1/4	1.14
PM 6S15	.015	3/8 x 1 1/4	1.14
PM 6S18	.018	7/16 x 1 1/4	1.14
PM 6S22	.022	7/16 x 1 1/4	1.20
PM 6S27	.027	7/16 x 1 1/4	1.20
PM 6S33	.033	1/2 x 1 1/2	1.26
PM 6S39	.039	1/2 x 1 1/2	1.26
PM 6S47	.047	1/2 x 1 1/2	1.38
PM 6S56	.056	1/2 x 1 1/2	1.38
PM 6S68	.068	9/16 x 1 11/16	1.44
PM 6S82	.082	5/8 x 1 7/8	1.44
PM 6P1	.10	5/8 x 1 7/8	1.50
PM 6P12	.12	5/8 x 1 7/8	1.50
PM 6P15	.15	11/16 x 1 15/16	1.62
PM 6P18	.18	11/16 x 1 15/16	1.68
PM 6P22	.22	3/4 x 2 1/4	1.74
PM 6P27	.27	3/4 x 2 1/4	1.86
PM 6P33	.33	1 x 2 1/8	1.98
PM 6P39	.39	1 x 2 1/8	2.10
PM 6P47	.47	1 x 2 1/8	2.28

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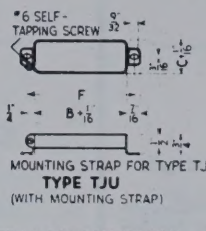
Sun Radio & ELECTRONICS CO. INC.

CORNELL-DUBILIER



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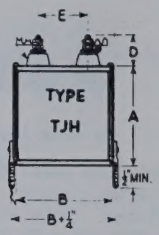


DYKANOL TRANSMITTING CAPACITORS

T Cat. No.	Cap. Mfd.	Dimensions—Inches A	B	C	D	E	F	Net Price
600 V. D.C. Working								
T 6005	.5	2⅛	1 13/16	1 1/16	⅞	13/16	2¼	$2.82
T 6010	1	2⅛	1 13/16	1 1/16	⅞	13/16	2¼	3.48
T 6020	2	2⅛	1 13/16	1 1/16	⅞	13/16	2¼	4.29
T 6030	3	3⅛	1 13/16	1 1/16	⅞	13/16	2¼	4.93
T 6040	4	3⅛	2½	1 3/16	⅞	1⅛	3	5.46
T 6050	5	4¾	1 13/16	1 1/16	⅞	13/16	2¼	6.27
T 6060	6	4⅝	2½	1 3/16	⅞	1⅛	3	6.78
T 6080	8	3 13/16	3¾	1¼	⅞	2	4⅜	8.10
T 6100	10	4⅝	3¾	1¼	⅞	2	4⅜	9.09
1000 V. D.C. Working								
T 10001	.1	2	1 13/16	1 1/16	⅞	13/16	2¼	2.49
T 100025	.25	2⅛	1 13/16	1 1/16	⅞	13/16	2¼	2.82
T 10005	.5	2⅛	1 13/16	1 1/16	⅞	13/16	2¼	2.97
T 10010	1	2⅛	1 13/16	1 1/16	⅞	13/16	2¼	3.81
T 10020	2	4	1 13/16	1 1/16	⅞	13/16	2¼	4.93
T 10030	3	3½	2½	1 3/16	⅞	1⅛	3	5.79
T 10040	4	4⅝	2½	1 3/16	⅞	1⅛	3	6.27
T 10050	5	3 13/16	3¾	1¼	⅞	2	4⅜	7.59
T 10060	6	4¾	3¾	1¼	⅞	2	4⅜	8.43
T 10080	8	4¾	3¾	1¼	⅞	2	4⅜	9.09
T 10100	10	4⅝	3¾	1¾	⅞	2	4⅜	10.08
T 10120	12	3 13/16	3¾	2¼	⅞	2	4⅜	10.89
T 10150	15	4¾	3¾	2½	⅞	2	4⅜	12.06
1500 V. D.C. Working								
T 15003	.5	2⅞	1 13/16	1 1/16	⅞	13/16	2¼	3.81
T 15010	1	4	1 13/16	1 1/16	⅞	13/16	2¼	4.47
T 15020	2	4⅛	2½	1 3/16	⅞	1⅛	3	6.27
T 15030	3	4¾	2½	1 3/16	⅞	1⅛	3	7.44
T 15040	4	4⅝	3¾	1¼	⅞	2	4⅜	8.43
T 15050	5	4¾	3¾	1¾	⅞	2	4⅜	9.09
T 15060	6	4¾	3¾	1¾	⅞	2	4⅜	10.23
T 15080	8	4¾	3¾	2½	⅞	2	4⅜	12.54
*T 15100	10	4¾	3¾	3 3/16	⅞	2	4⅜	15.03
*T 15120	12	4¾	3¾	3 3/16	⅞	2	4⅜	16.35
†*T 15150	15	4¾	3¾	4 3/16	⅞	2	4⅜	18.00
2000 V. D.C. Working								
T 20001	1	2⅛	1 13/16	1 1/16	⅞	13/16	2¼	$3.96
T 200025	.25	2⅛	1 13/16	1 1/16	⅞	13/16	2¼	4.29
T 20005	.5	2⅞	1 13/16	1 1/16	⅞	13/16	2¼	4.47
T 20010	1	3⅝	2½	1 3/16	1¼	1¼	3	5.46
T 20020	2	4	3¾	1¼	1¼	2	4⅜	6.45
T 20030	3	4¾	3¾	1¼	1¼	2	4⅜	7.92
T 20040	4	3 13/16	3¾	2¼	1¼	2	4⅜	9.09
T 20050	5	4¾	3¾	2¼	1¼	2	4⅜	10.08
*T 20060	6	4¾	3¾	3 3/16	1¼	2	4⅜	12.06
*T 20080	8	4¾	3¾	3 3/16	1¼	2	4⅜	15.03
†*T 20100	10	4¾	3¾	4 3/16	1¼	2	4⅜	18.33
†*T 20120	12	5⅜	3¾	4 3/16	1¼	2	4⅜	19.98
2500 V. D.C. Working								
T 25005	.5	3½	3¾	1¼	1¼	2	4⅜	6.93
T 25010	1	3¼	3¾	1¾	1¼	2	4⅜	7.92
T 25020	2	4¾	3¾	1¾	1¼	2	4⅜	12.87
†*T 25040	4	4	3¾	4 1/16	1¼	2	4⅜	18.00
†*T 25100A	10	6⅜	3¾	4 3/16	1¼	2	4⅜	45.06
3000 V. D.C. Working								
T 30001	.1	2	2½	1 3/16	1¼	1⅛	1	8.43
T 300025	.25	2½	2½	1 3/16	1¼	1⅛	3	8.91
T 30005	.5	3⅞	2½	1 3/16	1¼	1⅛	3	10.08
T 30010	1	3 13/16	3¾	2¼	1¼	2	4⅜	12.06
*T 30020	2	4⅛	3¾	3 3/16	1¼	2	4⅜	15.03
†*T 30040	4	4¾	3¾	4 3/16	1¼	2	4⅜	22.11
4000 V. D.C. Working								
T 40001	.1	2¾	3¾	2¼	2	2	4⅜	15.03
T 400025	.25	2¾	3¾	2¼	2	2	4⅜	15.84
T 40005	.5	4	3¾	2¼	2	2	4⅜	18.00
T 40010	1	5	3¾	2¼	2	2	4⅜	22.11
†*T 40020	2	5	3¾	4 1/16	2	2	4⅜	28.05
†*T 40040A	4	8	3¾	4 3/16	2	1¾	4⅜	40.11
5000 V. D.C. Working								
T 50005	.5	4⅛	3¾	2¼	2	2	4⅜	19.98
†*T 50010	1	4¼	3¾	4 1/16	2	2	4⅜	25.08
†*T 50020	2	6	3¾	4 3/16	2	2	4⅜	32.19
6000 V. D.C. Working								
†*T 60010A	1	8	3¾	4 3/16	2	1¾	4⅜	50.16

NOTES—* Type TJU units are not furnished in these larger sizes.
† Types TJL and TJH units furnished with two mounting holes or spade lugs 3⅜" apart. All other units furnished with a single mounting hole or spade lug centered on each bracket.

TYPE YAT
(Similar to CP67)

TYPE YAB
(YAB—Similar to CP69)

Metal Cased Dykanol Paper Capacitors

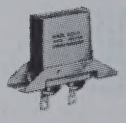
TYPE YAT

Types YAT and YAB are impregnated and filled with Dykanol "G" (chlorinated diphenyl) a synthetic, non-inflammable, non-oxidizable liquid compound. They are especially suited for use in bypass, audio frequency coupling circuits and other applications. Units are sealed in drawn metal shell containers and provided with leakproof terminals either on top or bottom of the can containers, designated as Types YAT and YAB. They will meet MIL-C-25A performance and test requirements.

TEMPERATURE RANGE: —55°C to +85°C.
STANDARD TOLERANCE: +20%, —10%.

YAT-YAB Cat. No.	Cap. Mfd.	Size—Inches L. x W. x H.	Net Price
600 V. D.C. Work.			
YAT or YAB 6005	.05	1¾ x 9/16 x 1 1/16	$2.16
YAT or YAB 6010	.1	1¾ x 9/16 x 1 1/16	2.16
YAT or YAB 6025	.25	1¾ x 9/16 x 1½	2.31
YAT or YAB 6050X	.5	1¾ x 9/16 x 2	2.49
YAT or YAB 6100	1.0	1¾ x 9/16 x 2½	2.82
YAT or YAB 60055	.05-.05	1¾ x 9/16 x 1 1/16	2.19
YAT or YAB 6011	.1-.1	1¾ x 9/16 x 1½	2.82
YAT or YAB 6022X	.25-.25	1¾ x 9/16 x 2	2.82
YAT or YAB 6055	.5-.5	1¾ x 9/16 x 2½	3.30
YAT or YAB 60555	.05 .05-.05	1¾ x 9/16 x 1 1/16	3.15
YAT or YAB 6111	.1-.1-.1	1¾ x 9/16 x 1½	3.30
YAT or YAB 6222	.25 .25-.25	1¾ x 9/16 x 2½	3.48
1000 V. D.C. Work.			
YAT or YAB 10005	.05	1¾ x 9/16 x 1 1/16	2.22
YAT or YAB 10010	.1	1¾ x 9/16 x 1 1/16	2.40
YAT or YAB 10023X	.25	1¾ x 9/16 x 2	2.49
YAT or YAB 10030	.5	1¾ x 9/16 x 2½	2.64
YAT or YAB 100055	.05-.05	1¾ x 9/16 x 1 1/16	2.64
YAT or YAB 10011	.1-.1	1¾ x 9/16 x 1½	2.97
YAT or YAB 10022	.25-.25	1¾ x 9/16 x 2½	3.15
YAT or YAB 100555	.05 .05-.05	1¾ x 9/16 x 1½	3.48
YAT or YAB 10111	.1-.1-.1	1¾ x 9/16 x 2½	3.81

TYPE WAT
(Similar to CP63)



TYPE WAB
(Similar to CP65)

Metal Cased Dykanol Paper Capacitors

TYPE WAT **TYPE WAB**

Types WAT and WAB Capacitors are smaller size units of similar construction and electrical characteristics but only supplied in single section units with two terminals. These units are ideally suited for use in assemblies where space is limited and multiple units may be mounted close together. They will meet MIL-C-25A performance and test requirements.

TEMPERATURE RANGE: —55°C to +85°C.
STANDARD TOLERANCE: +20%, —10%.

WAT-WAB Cat. No.	Cap. Mfd.	Size—Inches L. x W. x H.	Net Price
600 V. D.C. Work.			
WAT or WAB 6005X	.05	1 5/16 x 1 1/16 x 1 1/16	$2.31
WAT or WAB 6010	.1	1 5/16 x 1 1/16 x 1¾	2.49
WAT or WAB 6025	.25	1 5/16 x 1 1/16 x 1¾	2.64
WAT or WAB 6050	.5	1 5/16 x 1 1/16 x 2	2.82
WAT or WAB 6100	1.0	1 5/16 x 1 1/16 x 2½	3.15
1000 V. D.C. Work.			
WAT or WAB 10005	.05	1 5/16 x 1 1/16 x 1¾	2.49
WAT or WAB 10010	.1	1 5/16 x 1 1/16 x 1¾	2.49
WAT or WAB 10025	.25	1 5/16 x 1 1/16 x 2	2.64
WAT or WAB 10050	.5	1 5/16 x 1 1/16 x 2½	2.64

Dykanol Threaded Neck Capacitors

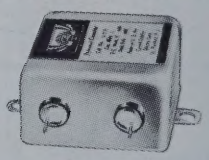
Type TLA Capacitors are thoroughly impregnated and filled with Dykanol "G" (chlorinated diphenyl), a non-inflammable, fireproof, non-oxidizable liquid compound which provides a high factor of safety and exceptionally long life. They will meet MIL-C25A performance and test requirements.

TEMPERATURE RANGE: —55°C to +85°C.
STANDARD TOLERANCE: +20%, —10%.

TLA Cat. No.	Cap. Mfd.	D.C. W. Volts	Size—Inches Lgth. x Diam.	Net Price
TLA 6020	2	600	2⅞ x 1½	$2.76
TLA 6040	4	600	4½ x 1½	3.78
TLA 10010	1	1000	2⅞ x 1½	2.52
TLA 10020	2	1000	4½ x 1½	3.27
TLA 15005	.5	1500	2⅞ x 1½	3.00
TLA 15010	1	1500	4½ x 1½	3.27

TNAD Cat. No.	Cap. Mfd.	D.C. W. Volts	Size—Inches Lgth. x Diam.	Net Price
*TNAD 6020	2	600	2⅞ x 1½	$3.24
*TNAD 6040	4	600	4½ x 1½	4.26
*TNAD 10010	1	1000	2⅞ x 1½	3.00
*TNAD 10020	2	1000	4½ x 1½	3.78
*TNAD 15005	.5	1500	2⅞ x 1½	3.51
*TNAD 15010	1	1500	4½ x 1½	3.78

*Type TNAD formerly TLAD—two solder lug terminals insulated from case. This type similar to CP41.



Metal Cased Dykanol Paper

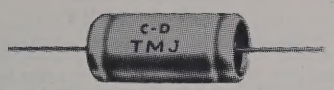
Type DYR Dykanol Bypass Capacitors are non-inductively wound and meet the need for dependable capacitors of fractional capacities that will operate efficiently in R.F. and A.F. bypass, audio frequency coupling under all humidity conditions. They are built to meet MIL-C25A performance and test requirements and have been specially designed to fill the severe requirements will meet MIL-C-25A performance and test requirements.

TEMPERATURE RANGE: —55°C to +85°C.
STANDARD TOLERANCE: +20%, —10%.

DYR Cat. No.	Cap. Mfd.	Size—Inches Lth. x Wid. x Thick.	Net Price
600 V. D.C. Work.			
DYR 6005	.05	1 13/16 x 1 x ¾	$1.74
DYR 6010	.1	1 13/16 x 1 x ¾	1.77
DYR 6025	.25	1 13/16 x 1 x ¾	1.86
DYR 6050	.5	1 13/16 x 1 x ⅞	1.98
DYR 6100	1	2 x 1¾ x ⅞	2.25
DYR 6200	2	2 x 2 x 1⅛	3.00
DYR 60055	.05-.05	1 13/16 x 1 x ¾	2.19
DYR 6011	.1-.1	1 13/16 x 1 x ¾	2.22
DYR 6022X	.25-.25	1 13/16 x 1 x ⅞	2.25
DYR 6055	.5-.5	2 x 1¾ x ⅞	2.58
DYR 6110	1.-1.	2 x 2 x 1⅛	3.18
DYR 6111	.1-.1-.1	1 13/16 x 1 x ¾	2.52
DYR 6222	.25-.25-.25	2 x 1¾ x 13/16	2.83
DYR 6555	.5-.5-.5	2 x 2 x 1⅛	3.45
1000 V. D.C. Work.			
DYR 10005	.05	1 13/16 x 1 x ¾	1.83
DYR 10010	.1	1 13/16 x 1 x ¾	1.89
DYR 10025	.25	1 13/16 x 1 x ¾	1.93
DYR 10050	.5	2 x 1¾ x 13/16	2.13
DYR 10100	1	2 x 2 x 1⅛	2.64
DYR 100055	.05-.05	1 13/16 x 1 x ¾	2.31
DYR 10011	.1-.1	1 13/16 x 1 x ¾	2.40
DYR 10022	.25-.25	2 x 1¾ x 13/16	2.52
DYR 10055	.5-.5	2 x 2 x 1⅛	3.27
DYR 10111X	.1-.1-.1	2 x 1¾ x ⅞	2.76
DYR 10222	.25-.25-.25	2 x 2 x 1⅛	3.30

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

CORNELL-DUBILIER



Metal Cased Tubular Dykanol Paper Capacitors

C-D type TMJ-4P is a non-magnetic metal-cased, ungrounded section, tubular paper capacitor, the body of which is covered with a non-hygroscopic plastic insulating tube. The unit is also available with a mounting strap* on request.

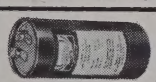
The TMJ is impregnated with Dykanol "C" (oil) and meets MIL-C-25A temperature Characteristic "E".

STANDARD TOLERANCE: +20%

TEMPERATURE RANGE: —55°C to +85°C

TMJ Cat. No.*	Cap. Mfd.	Body Dimensions Overall Dia. x Length	Net Price
		600 VDCW	
TMJ 6D3-4P	.003	½ x 1 5/16	$ .78
TMJ 6D6-4P	.006	½ x 1 5/16	.78
TMJ 6S1-4P	.01	½ x 1 5/16	.78
TMJ 6S2-4P	.02	½ x 1 13/16	.87
TMJ 6S5-4P	.05	11/16 x 1 11/16	.93
TMJ 6P1-4P	.10	11/16 x 2 1/16	1.05
TMJ 6P25-4P	.25	11/16 x 2 5/16	1.44
TMJ 6P5-4P	.50	11/16 x 2 13/16	1.83
		1000 VDCW	
TMJ 10D3-4P	.003	11/16 x 1 5/16	.93
TMJ 10D6-4P	.006	11/16 x 1 5/16	.93
TMJ 10S1-4P	.01	11/16 x 1 5/16	.93
TMJ 10S2-4P	.02	11/16 x 1 11/16	1.02
TMJ 10S5-4P	.05	13/16 x 1 13/16	1.08
TMJ 10P1-4P	.10	11/16 x 2 1/8	1.23
TMJ 10P25-4P	.25	11/16 x 2 13/16	1.62
		1600 VDCW	
TMJ 16D3-4P	.003	11/16 x 1 7/16	1.02
TMJ 16D6-4P	.006	11/16 x 1 7/16	1.02
TMJ 16S1-4P	.01	11/16 x 1 7/16	1.02
TMJ 16S2-4P	.02	11/16 x 1 13/16	1.08
TMJ 16S5-4P	.05	11/16 x 2 1/16	1.17
TMJ 16P1-4P	.10	11/16 x 2 5/16	1.53

*For unit with mounting strap, specify type as TMJ-6P (Ex. TMJ-6S1-6P).



A.C. Motor Starting Capacitors

TYPE ETB♦—110 VOLTS A.C. 50-60 CYCLES

These C-D Electrolytic Motor-Starting Capacitors are universal replacement units for use in standard makes of oilburners, refrigerators and other motor driven equipment. The list of units below simplifies the selection of the capacitor required when the capacity, voltage rating, and size are known.

All units are furnished with tightly fitted insulating cardboard tube or paper box casings with self-tapping screw terminals on

ETB Cat. No.	Cap. Mfd. Min.	Cap. Mfd. Max.	Can† Dimensions—Ins. Dia. x Length	Net Price
ETB-20	20	24	1⅜ x 2⅜	$1.23
ETB-35	32	36	1⅜ x 2⅜	1.26
ETB-40	38	46	1⅜ x 2⅜	1.26
ETB-45	43	48	1⅜ x 2⅜	1.26
ETB-53-1	53	60	1⅜ x 2⅛	1.29
ETB-70-2	64	72	1¾ x 2⅛	1.35
ETB 75-3	70	78	1⅛ x 2⅜	1.44
ETB-80-1	75	84	1⅜ x 2⅜	1.53
ETB-90-1	86	96	1⅛ x 2⅜	1.59
ETB-100	97	107	1⅜ x 3⅛	1.68
ETB-110-1	107	129	1⅛ x 2⅜	1.71
ETB-115	108	120	1⅜ x 3⅛	1.71
ETB-130-3	124	138	1⅛ x 2⅜	1.77
ETB 135	124	149	1⅜ x 3⅛	1.77
ETB-145-3	130	157	1⅜ x 3⅛	1.77
ETB 150-1	137	162	1¾ x 3⅛	1.86
ETB-155-4	145	162	1¾ x 3⅛	1.92
ETB 170-2	158	191	1⅜ x 3⅛	1.95
ETB-175-5	161	180	1⅜ x 3⅛	1.95
ETB 200-1	189	210	1¾ x 3⅛	2.22
ETB-200-4	189	210	1⅜ x 4⅛	2.22
ETB 205-2	194	216	1⅜ x 4⅛	2.34
ETB 210-3	192	232	1⅜ x 4⅛	2.34
ETB-215	190	240	1⅜ x 3⅛	2.34
ETB-225-5	216	240	1⅜ x 4⅛	2.43
ETB-225-6	216	240	1½ x 3⅛	2.43
ETB-250-2	233	281	1½ x 4⅛	2.70
ETB 255-2	243	270	1½ x 4⅛	2.82
ETB-285	270	300	1¾ x 4⅛	2.85
ETB 310-1	297	330	2 x 3⅛	2.91
ETB-315-1	282	340	2 x 3⅛	3.12
ETB-340-2	324	360	1¾ x 4⅛	3.24
ETB-400	378	420	2 x 4⅛	3.60
ETB-450-1	432	480	2 x 4⅛	4.17
ETB 460-1	413	498	2 x 4⅛	4.17
ETB-525	485	580	2½ x 4⅛	4.62
ETB-600	560	640	2½ x 4⅛	4.98
ETB-675	640	720	2½ x 4⅛	5.34

High-Capacity Low-Voltage Electrolytics

Type FB capacitors in round cardboard sleeved aluminum cans are designed for high capacity, low voltage applications, and are especially popular as replacements in motion picture sound equipment, and other low voltage circuits.

TEMPERATURE RANGE to 85°C.

FB Cat. No.	Cap. Mfd.	D.C. W. Volts	Can†† Size—Inches Dia. x Lgth.	Net Price
FB 1005	500	10	1⅜ x 2⅜	$1.86
FB 1010	1000	10	1⅜ x 2⅜	2.13
FB 1015	1500	10	1⅜ x 2⅜	2.25
FB 1020	2000	10	1⅜ x 2⅜	2.37
FB 1030	3000	10	1⅜ x 3⅛	2.61
FB 1040	4000	10	1⅜ x 4⅛	2.85
FB 1050	5000	10	1½ x 4⅛	3.09
FB 1060	6000	10	1¾ x 4⅛	4.50
FB 1505	500	15	1⅜ x 2⅜	1.95
FB 1510	1000	15	1⅜ x 2⅜	2.28
FB 1515	1500	15	1⅜ x 2⅝	2.40
FB 1520	2000	15	1⅜ x 3⅛	2.82
FB 1530	3000	15	1⅜ x 4⅛	3.09
FB 1540	4000	15	1½ x 4⅛	4.86
FB 1560	6000	15	2 x 4⅛	6.00
FB 2510	1000	25	1⅜ x 3⅛	2.88
FB 2520	2000	25	1¾ x 4⅛	3.45
FB 2530	3000	25	1¾ x 4⅛	4.80
FB 2540	4000	25	2 x 4⅛	5.70
FB 2550	5000	25	2½ x 4⅛	6.60
FB 5005	500	50	1⅜ x 3⅛	2.34
FB 5010	1000	50	1⅜ x 4⅛	4.20
FB 5020	2000	50	1¾ x 4⅛	5.46
FB 5030	3000	50	2 x 4⅛	6.90
FB 5040	4000	50	2½ x 4⅛	7.50

††For Overall Size add 1/16" to Diam. and ⅜" to Length.

SELENIUM RECTIFIER CAPACITORS

Type **UPE** are etched anode and cathode units especially engineered to prevent capacity drop due to high ripple and surge currents normally encountered in selenium rectifier circuits. *A protective series-resistor of approximately 50 ohms for a 100 ma. load, and at least 10 ohms for a 250 ma. load, should always be used to protect both the rectifier and filter capacitors. Use only type UPE in selenium rectifier circuits.*

UPE Single Section Units

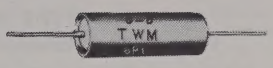
Rotational Stock No.	Cap./Volts	Size—Ins. Dia. x Lgth.	Net Price
XA001	40/150	¾ x 2	$ .96
XA002	80/150	1 x 2	1.11
XA003	100/150	1 x 2½	1.20
XA004	150/150	1 x 3	1.29
XA005	300/150	1⅜ x 3	1.68
XA006	80/200	1⅜ x 2	1.17
XA007	150/200	1⅜ x 2½	1.68
XA008	40/250	1 x 2	1.08
XA009	60/300	1 x 2½	1.26
XA010	80/300	1 x 3	1.53
XA011	80/350	1⅜ x 2½	1.71
XA012	125/350	1⅜ x 3	2.19
XA013	30/500	1 x 3	1.20

UPE Dual Section Units

XB001	20-20/150	1 x 2	$1.02
XB002	40-40/150	1 x 2	1.14
XB003	50-50/150	1 x 2½	1.29
XB004	80-40/150	1 x 2½	1.38
XB005	80-80/150	1⅜ x 2	1.59
XB006	100-100/150	1⅜ x 2½	1.95
XB007	150-150/150	1⅜ x 3	2.10
XB008	200-150/150	1⅜ x 3⅜	2.25
XB009	200-200/150	1⅜ x 3⅜	2.40
XB010	100-100/200	1⅜ x 3	2.10
XB011	40-40/250	1 x 3	1.53
XB012	80-40/250	1⅜ x 2½	1.80
XB013	40-40/300	1 x 3	1.80
XB014	80-40/300	1⅜ x 2½	2.13

UPE Triple Section Units

XC001	20-20-20/150	1 x 2	$1.41
XC002	40-20-20/150	1 x 2	1.44
XC003	50-50-50/150	1 x 3	1.80
XC004	80-80-80/150	1⅜ x 3	2.25
XC005	120-80-40/150	1⅜ x 3	2.22
XC006	20-20/150 20/25	1 x 2	1.32
XC007	40-20/150 20/25	1 x 2	1.38
XC008	40-40/150 20/25	1 x 2	1.44
XC009	40-20/300 20/25	1 x 2½	1.86
XC010	100/300 60-20/250	1¾ x 4⅛	2.94
XC011	200/300 20-60/250	1⅜ x 5	3.27



Miniature Metal Cased Tubular "Demicons"

The Cornell-Dubilier series of "DEMICON" capacitors offer miniaturized tubular metal-cased units designed and processed to meet rigid and severe operating requirements particularly where space limitations are an important factor.

Cornell-Dubilier DEMICONS are hermetically sealed in metal cases, with glass-to-metal seal terminals and are available in a wide variety of mounting styles, impregnants, tolerances, and internal construction.

STANDARD TOLERANCE: ±20%.

TEMPERATURE RANGE:

TWU "Dykanol U"* — 55°C to +125°C.

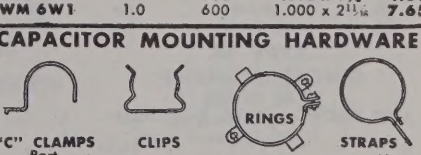
TWM "Mylar"** polyester film — 55°C to +160°C.

PRICES shown below are for BASIC STYLE—UNGROUNDED.

TWU Cat. No.	Cap. Mfd.	V.D.C.W.	Size—Inches Dia. x Length	Net Price
TWU 1D1	.001	100	.175 x ¾	$2.48
TWU 1S1	.01	100	.175 x ¾	2.55
TWU 1P1	.1	100	.312 x ⅞	2.78
TWU 1W1	1.0	100	.562 x 1⅞	3.64
TWU 2D1	.001	200	.235 x ¾	2.59
TWU 2S1	.01	200	.235 x ¾	2.66
TWU 2P1	.1	200	.400 x ⅞	2.89
TWU 2W1	1.0	200	.670 x 1⅞	4.05
TWU 3D1	.001	300	.235 x ¾	2.63
TWU 3S1	.01	300	.235 x ¾	2.70
TWU 3P1	.1	300	.400 x 1⅛	2.93
TWU 3W1	1.0	300	.750 x 2⅛	4.31
TWU 4D1	.001	400	.235 x ¾	2.66
TWU 4S1	.01	400	.235 x ¾	2.74
TWU 4P1	.1	400	.400 x 1⅜	3.11
TWU 4P68	.68	400	.750 x 2⅛	4.31
TWU 6D1	.001	600	.235 x ¾	2.70
TWU 6S1	.01	600	.312 x ⅞	2.81
TWU 6P1	.1	600	.562 x 1⅛	3.34
TWU 6P47	.47	600	.750 x 2⅛	4.35
TWU 10D1	.001	1000	.400 x ⅞	3.08
TWU 10S1	.01	1000	.400 x ⅞	3.19
TWU 10P1	.1	1000	.562 x 1⅜	3.75
TWU 10P47	.47	1000	1.000 x 2⅛	4.73

TWM Cat. No.	Cap. Mfd.	V.D.C.W.	Size—Inches Dia. x Length	Net Price
TWM 1S1	.01	100	.235 x ⅞	$3.57
TWM 1S22	.022	100	.312 x ⅞	3.66
TWM 1S47	.047	100	.312 x ⅞	3.78
TWM 1P1	.1	100	.400 x ⅞	3.90
TWM 4D22	.0022	400	.235 x ⅞	3.72
TWM 4S1	.01	400	.312 x ⅞	3.84
TWM 4P1	.1	400	.562 x 1	4.35
TWM 4W1	1.0	400	.750 x 2½	6.30
TWM 6D22	.0022	600	.235 x ⅞	3.78
TWM 6S1	.01	600	.312 x 1	3.93
TWM 6P1	.1	600	.562 x 1¾	4.68
TWM 6W1	1.0	600	1.000 x 2 11/16	7.65

CAPACITOR MOUNTING HARDWARE



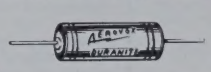
"C" CLAMPS CLIPS STRAPS

Part No.	Description	Net Price
14582	Mounting Ring for 1" dia. Cans	.06
12125	Mounting Ring for 1⅜" dia. Cans	.06
13591	Mounting Ring for 1½" dia. Cans	.09
16693	Mounting Ring for 1¾" dia. Cans	.11
14464	Mounting Ring for 2" dia. Cans	.14
13590	Mounting Ring for 2½" dia. Cans	.14
13591	Mounting Ring for 3" dia. Cans	.14
15266	Mounting Ring for 3½" dia. Cans	.14
17842	Mounting Ring for 1" dia. Cans	.06
19213	Mounting Ring for 1⅛" dia. Cans	.06
18573	Mounting Ring for 1¼" dia. Cans	.06
17843	Mounting Ring for 1⅜" dia. Cans	.06
17844	Mounting Ring for 1½" dia. Cans	.09
21368-1	Mounting Clip for ¾" dia. Cans	.09
21368-2	Mounting Clip for 1" dia. Cans	.09
21368-3	Mounting Clip for 1⅜" dia. Cans	.09
17920	"C" Clamp for ⅜"-¾" Cans or Tubulars	.09
17921	"C" Clamp for ⅞"-1" Cans or Tubulars	.09
16279	Tubular Mounting Straps	.04
16280	Tubular Mounting Straps	.04
16285	Tubular Mounting Straps	.04
17203	Tubular Mounting Straps	.04
17516	Tubular Mounting Straps	.04
17517	Tubular Mounting Straps	.04
27886	Tubular Mounting Straps	.04

AEROVOX
TYPE P88N
Duranite Blue Moulded Tubular Capacitors

Toughest capacitors ever offered for radio-electronic equipment, DURANITE capacitors are entirely new—in design, impregnant, processing, and casing. New technique glove-fitting contact and seal throughout. DURANITE provides a permanent, non-varying, rock-hard casing, does not dry out, does not develop cracks or fissures. Pig-tail leads firmly imbedded, won't pull out, won't work loose. Moisture-proof; operate from sub-zero to over 212°F. Exposure to temperatures of 250°F. will not impair life or performance, no deterioration on the shelf.

Size	Length x Dia.	Size	Length x Dia.
A	1-1/8 x 11/32	E	1-5/8 x 17/32
B	1-3/8 x 13/32	F	2 x 21/32
		G	3/4 x 2- 1/4
D	1-3/8 x 15/32	H	1 x 2- 1/2



Cap Mfd.	200 V Size	200 V Net Each	400 V Size	400 V Net Each	600 V Size	600 V Net Each	1000 V Size	1000 V Net Each	1600 V Size	1600 V Net Each
.00025					A	$.15				
.0001					A	.15				
.0004					A	.15				
.0005					A	.15				
.001	A	$.15	A	$.15	A	.15	A	$.29	B	$.35
.0015	A	.15	A	.15	A	.15	A	.29	B	.35
.002	A	.15	A	.15	A	.15	A	.29	B	.35
.0022	A	.15	A	.15	A	.15	A	.29	B	.35
.003	A	.15	A	.15	A	.15	B	.29	B	.35
.0033	A	.15	A	.15	A	.15	B	.29	B	.35
.004	A	.15	A	.15	A	.15	B	.29	B	.35
.0047	A	.15	A	.15	A	.15	B	.29	D	.35
.005	A	.15	A	.15	A	.15	B	.29	D	.35
.006	A	.15	A	.15	B	.15	B	.29	D	.35
.0068	A	.15	A	.15	B	.15	B	.29	D	.38
.007	A	.15	A	.15	B	.15	B	.29	E	.38
.0075	A	.15	A	.15	B	.18	B	.29	E	.38
.008	A	.15	A	.15	B	.18	B	.29	E	.38
.01	A	.15	A	.15	B	.18	B	.29	E	.38
.015	A	.15	B	.15	B	.18	D	.29	E	.38
.02	B	.15	B	.15	D	.18	E	.29	F	.38
.022	B	.15	B	.18	D	.18	E	.29	F	.38
.025	B	.15	B	.18	D	.21	E	.29	F	.38
.03	B	.15	B	.18	D	.21	E	.29	F	.38
.033	B	.15	B	.18	E	.21	E	.35	F	.41
.04	B	.15	D	.18	E	.21	F	.35		
.047	B	.15	D	.18	E	.21	F	.35		
.05	B	.15	D	.18	E	.24	F	.35		
.06	D	.18	E	.18	F	.24	F	.35		
.068	D	.18	E	.21	F	.24	F	.41		
.075	D	.18	E	.21	F	.27				
.1	D	.21	E	.21	F	.27				
.15	E	.21	F	.24	F	.29				
.22	F	.24	F	.24	G	.32				
.25	F	.24	F	.24	G	.32				
.27	F	.27	G	.29	H	.35				
.33	F	.29	G	.29	H	.38				
.47	F	.35	G	.35	H	.44				
.5	F	.35	G	.35	H	.47				
1.0	H	.53	H	.53						

AEROVOX
TYPE GL & GLS

These popular inverted-mounting, aluminum can units are furnished with two separate color-coded leads 4" long for each section. Mounts with Pal Nut.

TYPE GL
SINGLE ELEMENT
TYPE GL600
600 VDCW 750V. Surge Peak

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
4	1-3/8 x 4	$1.73
8	1-3/8 x 4-1/2	1.85
16	1-3/8 x 4-1/2	2.21

TYPE GL475
475 VDCW 525V. Surge Peak

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
8	1-3/8 x 3	$1.62
12	1-3/8 x 3	1.73
16	1-3/8 x 3	1.85

TYPE GL450
450 VDCW 500V. Surge Peak

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
4	1-3/8 x 3	$1.18
8	1-3/8 x 3	1.29
10	1-3/8 x 3	1.35
12	1-3/8 x 3	1.41
16	1-3/8 x 3	1.44
20	1-3/8 x 3	1.62
30	1-3/8 x 3	1.76
40	1-3/8 x 3	1.85
80	1-3/8 x 4	2.88

SINGLE ELEMENT
TYPE G475
475 VDCW 525V. Surge Peak

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
4	1-3/8 x 2-1/4	$1.29
8	1-3/8 x 2-1/4	1.35

TYPE G450
450 VDCW 500V. Surge Peak

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
4	1-3/8 x 2-1/4	$1.26
8	1-3/8 x 2-1/4	1.32
10	1-3/8 x 2-1/4	1.35
12	1-3/8 x 2-1/4	1.38
16	1-3/8 x 2-1/4	1.41
20	1-3/8 x 2-1/4	1.50
30	1-3/8 x 2-1/4	1.59
40	1-3/8 x 2-3/4	1.62
80	1-3/8 x 4-1/4	1.65

DUAL ELEMENT
TYPE G450

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
8-8	1-3/8 x 2-1/4	$1.91
8-16	1-3/8 x 2-1/4	2.06
10-10	1-3/8 x 2-1/4	1.97
12-12	1-3/8 x 2-1/4	2.03
16-16	1-3/8 x 2-3/4	2.23
20-20	1-3/8 x 2-3/4	2.38

AEROVOX
TYPE P89ZXY
Hermetically Sealed Capacitors

Hermetically sealed metallized paper capacitors. Sealed in metal cases with rubber bakelite end seals. Impregnated with Hyvol K or Hyvol M, these units are manufactured for operating temperature of —55°C. to +70°C. without voltage derating and operation up to 95°C. ambient with derating.

Standard units are furnished without insulating tube or bracket (XY). If cardboard insulating sleeve and radial mounting bracket are desired specify type P89Z and add $0.21 to net price.

Cap. Mfd.	200 VDC Size	200 VDC Net Each	400 VDC Size	400 VDC Net Each	600 VDC Size	600 VDC Net Each
.01					3/8 x 1	$.82
.02					3/8 x 1	.85
.03			3/8 x 1	$.82	7/16 x 1	.88
.05	3/8 x 1	$.82	7/16 x 1	.85	1/2 x 1	.91
.1	7/16 x 1	.85	7/16 x 1-5/16	.94	1/2 x 1-1/2	1.00
.25	1/2 x 1	.94	5/8 x 1-5/16	1.06	5/8 x 1-5/8	1.18
.5	1/2 x 1-5/16	1.00	5/8 x 2	1.18	3/4 x 2	1.41
1.0	5/8 x 1-1/2	1.24	3/4 x 2-1/2	1.47	13/16 x 2-1/2	1.76
2.0	5/8 x 2	1.53	1 x 2-1/2	2.12	1- 1/4 x 2-1/2	2.35
	150 VDC					
3.0	3/4 x 2	$2.00				
4.0	13/16 x 2	2.56				
6.0	1 x 2	3.12				

Sizes shown are for floating case without insulating tube.

X denotes cardboard insulating sleeve, but no bracket-Add $0.15 to price

Y denotes bracket but not insulating sleeve-Add $0.20 to price

XP denotes plastic insulating sleeve, but no bracket-Add $0.15 to price

Standard tolerance ±20%

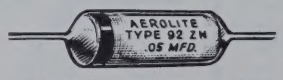
For ±10% tolerance, add 50% to price
For ±5% tolerance, add 100% to price

AEROVOX
TYPE P82Z
Wax Impregnated Cardboard Sleeve Capacitors

Metallized-paper capacitor in wax impregnated cardboard sleeve. These units are manufactured with metal end caps and extended foil construction for low impedance. Operating temperature, —40°C to +70°C.

Capacity Mfd.	200 V	Net Each	400 V	Net Each	600 V	Net Each
.01	3/8 x 5/8	$.35	3/8 x 5/8	$.38	3/8 x 5/8	$.41
.02	3/8 x 5/8	.35	3/8 x 5/8	.38	3/8 x 5/8	.41
.03	3/8 x 5/8	.35	3/8 x 5/8	.38	15/32 x 5/8	.47
.05	3/8 x 5/8	.38	15/32 x 5/8	.41	15/32 x 5/8	.47
.1	3/8 x 5/8	.41	15/32 x 1-1/8	.47	15/32 x 1-1/8	.53
.25	15/32 x 5/8	.53	9/16 x 1-1/8	.59	5/8 x 1-1/8	.65
.5	15/32 x 1-1/8	.62	5/8 x 1-5/8	.68	23/32 x 1-5/8	.85
1.0	9/16 x 1-1/8	.76	23/32 x 2-1/8	.94	23/32 x 2-5/8	1.06
2.0	5/8 x 1-5/8	1.06				

Standard tolerance ±20%
For ±10% tolerance, add 25% to price.
For ±5% tolerance, add 50% to price.



AEROVOX
TYPE P92ZN
High Temperature Tubular Capacitors

AEROVOX type P92ZN Aerolene impregnated metallized-paper capacitors are modified plastic tubular type, Duranite end-sealed capacitors in paper cases. Operating temperature range is —30°C. +100°C.

Capacity	200 V	Net Each	400 V	Net Each	600 V	Net Each
.01	3/16 x 9/16	$.35	1/4 x 11/16	$.38	9/32 x 11/16	$.41
.02	1/4 x 11/16	.35	5/16 x 11/16	.38	3/8 x 11/16	.41
.03	1/4 x 11/16	.35	3/8 x 11/16	.38	13/32 x 11/16	.47
.05	1/4 x 27/32	.38	3/8 x 27/32	.41	13/32 x 27/32	.47
.1	9/32 x 27/32	.41	3/8 x 1-5/32	.47	13/32 x 1-5/32	.53
.25	3/8 x 27/32	.53	9/16 x 1-5/32	.59	5/8 x 1-5/32	.65
.5	13/32 x 1-5/32	.62	5/8 x 1-3/8	.68	11/16 x 1-1/2	.85
1.0	9/16 x 1-5/32	.76	11/16 x 1-7/8	.94	13/16 x 1-7/8	1.06
2.0	5/8 x 1-1/2	1.06	13/16 x 2-3/8	1.29	15/16 x 2-3/8	1.47

DUAL ELEMENT
TYPE GL475

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
8-8	1-3/8 x 4	2.41

TYPE GL450

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
8-8	1-3/8 x 4	1.76
8-16	1-3/8 x 4	1.94
10-10	1-3/8 x 4	1.82
12-12	1-3/8 x 4	1.88
16-16	1-3/8 x 4	$2.09
20-20	1-3/8 x 4	2.23

TRIPLE ELEMENT
TYPE GL450

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
8-8-8	1-3/8 x 4	2.94
10-10-10	1-3/8 x 4	3.12

TYPE GLS
SINGLE ELEMENT
TYPE GLS450
450 VDCW 500V Surge Peak

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
4	1 x 2- 3/16	$1.18
8	1 x 2-11/16	1.29
12	1 x 3- 1/4	1.41
16	1 x 3- 1/4	1.44

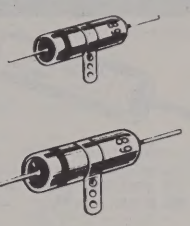
DUAL ELEMENT
TYPE GLS450

Cap. Mfd.	Can Size Dia. x Hght.	Net Each
8-8	1-3/8 x 3	1.76

AEROVOX TYPE P89 Oil-Filled Tubular Capacitors

Immersion-proof, oil-impregnated, oil-filled units in handy, space-saving tubes. Ideal for vibrator applications, coupling and by-pass functions in transmitters, high-voltage and in test equipment. Fully sealed against oil leakage or moisture penetration. Case is insulated, not connected to the capacitor section. Supplied with mounting strap and outer insulating tube. For size over insulating tube add 1/16" to diameter and 3/16" to length. These units are similar to CP25-29 series of MILC25A. All sizes shown are can sizes.

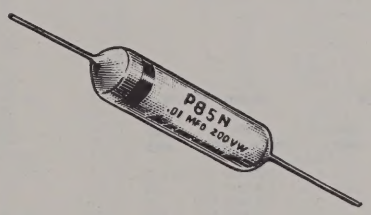
Capacity Mfd.	400 V	Net Each	600 V	Net Each	1000 V	Net Each	1600 V	Net Each
.001	5/16 x 1- 3/16	$.59	3/8 x 1- 3/16	$.62	7/16 x 1- 3/16	$.71		
.002	5/16 x 1- 3/16	.59	3/8 x 1- 3/16	.62	7/16 x 1- 3/16	.71		
.003	5/16 x 1- 3/16	.59	3/8 x 1- 3/16	.62				
.004	5/16 x 1- 3/16	.59	3/8 x 1- 3/16	.62				
.005	5/16 x 1- 3/16	.59	3/8 x 1- 3/16	.62	7/16 x 1- 3/16	.71	5/8 x 1-3/8	$.82
.006	3/8 x 1- 3/16	.59	3/8 x 1- 3/16	.62	7/16 x 1- 3/16	.71		
.007							5/8 x 1-3/8	.82
.0075	3/8 x 1- 3/16	.59	3/8 x 1- 5/16	.62	7/16 x 1- 3/16	.71		
.01	3/8 x 1- 3/16	.59	3/8 x 1- 5/16	.62	7/16 x 1- 5/16		5/8 x 1-3/8	.82
.015	7/16 x 1- 5/16	.65	7/16 x 1- 5/16	.65	7/16 x 1- 7/16	.76		
.02	1/2 x 1- 5/16	.65	1/2 x 1- 5/16	.68	1/2 x 1- 7/16	.76		
.03	1/2 x 1- 5/16	.68	1/2 x 1- 7/16	.71	9/16 x 1- 9/16	.76		
.04	1/2 x 1- 7/16	.68	9/16 x 1- 9/16	.71	9/16 x 1- 9/16	.76		
.05	1/2 x 1- 7/16	.68	9/16 x 1- 7/16	.71	9/16 x 1- 9/16	.85	11/16 x 1-7/8	.94
.075	9/16 x 1- 9/16	.71	9/16 x 1-11/16	.76	5/8 x 1-15/16	.91		
.1	5/8 x 1-11/16	.76	5/8 x 1-15/16	.82	11/16 x 1-15/16	.97		
.25	13/16 x 2- 1/16	.94	13/16 x 2- 3/16	1.09	7/8 x 2- 5/16	1.29		
.5	1 x 2- 1/16	1.12	1 x 2- 7/16	1.41				



TYPE P89

Capacity Mfd.	2000 V	Net Each	2500 V	Net Each	3000 V	Net Each	3500 V	Net Each	4000 V	Net Each	5000 V	Net Each	6000 V	Net Each
.0005			3/4 x 1-5/8	$.88	7/8 x 1-5/8	$.97	1 x 1-5/8	$1.15	1 x 1-5/8	$1.29	1 x 1-5/8	$1.47	1 x 1-7/8	$1.62
.001	3/4 x 1-5/8	$.82	3/4 x 1-5/8	.88	7/8 x 1-5/8	.97	1 x 1-5/8	1.15	1 x 1-5/8	1.29	1 x 1-5/8	1.47	1 x 2	1.62
.002	3/4 x 1-5/8	.82											1 x 2-1/8	1.62
.003	3/4 x 1-5/8	.82												
.004	3/4 x 1-5/8	.82												
.005	3/4 x 1-5/8	.82	3/4 x 1-5/8	.88	7/8 x 1-5/8	.97	1 x 1-3/4	1.15	1 x 1-7/8	1.29	1 x 2-1/8	1.47	1 x 2-1/2	1.62
.006	3/4 x 1-5/8	.82												
.0075	3/4 x 1-5/8	.82												
.01	3/4 x 1-5/8	.82	3/4 x 1-3/4	.88	7/8 x 1-3/4	.97	1 x 1-3/4	1.15	1 x 2-1/4	1.29	1 x 2-5/8	1.47	1 x 3-1/4	1.62
.015	3/4 x 1-5/8	.85												
.02	3/4 x 1-7/8	.88	3/4 x 2	.97	7/8 x 2	1.06	1 x 2	1.24	1 x 3	1.38	1-3/8 x 2-1/2	1.56	1-3/8 x 3	1.71
.03	3/4 x 1-7/8	.91	3/4 x 2-1/8	1.03	1 x 2-1/4	1.15	1 x 2-1/2	1.29	1-3/8 x 2-1/2	1.47	1-3/8 x 3	1.62	1-3/8 x 3-3/4	1.79
.04	3/4 x 2-1/4	.91												
.05	7/8 x 2-1/4	.94	7/8 x 2-1/4	1.15	1 x 2-1/2	1.24	1 x 3-1/4	1.38	1-3/8 x 3-1/4	1.56	1-3/8 x 4	1.71	1-3/8 x 5	1.88
.075	1 x 2-1/2	1.15												
.1	1 x 2-1/2	1.29	1 x 3	1.56	1-3/8 x 2-3/4	1.71	1-3/8 x 3-1/4	1.88	1-3/8 x 4-3/4	2.03				

AEROVOX TYPE P85N Miniaturized Aerolene Capacitors



Miniaturized Aerolene (Hyvol N) impregnated tubular units. Duranite endfill excludes moisture. Designed for personal radios, hearing aids and miniature assemblies requiring maximum performance in minimum size. Operating temperature range —30°C. to +100°C.

Standard Tolerance up to .0099 MFD ±30%-20%. .01 MFD and up, 20%.

Cap. Mfd.	200 V	Net Each	400 V	Net Each	600 V	Net Each
.00025	13/64 x 19/32	$.21	13/64 x 21/32	$.21	13/64 x 21/32	$.21
.0005	13/64 x 19/32	.21	13/64 x 23/32	.21	13/64 x 23/32	.21
.001	13/64 x 19/32	.21	13/64 x 23/32	.21	15/64 x 23/32	.21
.0015	13/64 x 19/32	.21	13/64 x 23/32	.21	15/64 x 23/32	.21
.002	13/64 x 19/32	.21	13/64 x 23/32	.21	17/64 x 23/32	.21
.0022	13/64 x 19/32	.21	13/64 x 23/32	.21	17/64 x 23/32	.21
.003	13/64 x 19/32	.21	15/64 x 23/32	.21	19/64 x 23/32	.21
.0033	13/64 x 19/32	.21	15/64 x 23/32	.21	19/64 x 23/32	.21
.004	13/64 x 19/32	.21	15/64 x 23/32	.21	19/64 x 25/32	.24
.0047	15/64 x 19/32	.21	15/64 x 25/32	.21	19/64 x 25/32	.24
.005	15/64 x 19/32	.21	15/64 x 25/32	.21	19/64 x 25/32	.24
.0060	15/64 x 19/32	.21	17/64 x 25/32	.21	21/64 x 25/32	.27
.0068	17/64 x 19/32	.24	17/64 x 25/32	.24	21/64 x 27/32	.27
.010	17/64 x 21/32	.24	17/64 x 27/32	.27	21/64 x 29/32	.27
.015	19/64 x 21/32	.27	19/64 x 29/32	.27	23/64 x 1-1/32	.29
.020	19/64 x 23/32	.27	21/64 x 29/32	.27	25/64 x 1-3/32	.29
.022	19/64 x 25/32	.27	21/64 x 29/32	.27	25/64 x 1-5/32	.29
.03	19/64 x 27/32	.27	23/64 x 31/32	.27	29/64 x 1-5/32	.32
.033	21/64 x 27/32	.29	23/64 x 1-1/32	.29	29/64 x 1-7/32	.32
.04	21/64 x 31/32	.29	27/64 x 1-1/32	.29	31/64 x 1-7/32	.32
.047	21/64 x 31/32	.29	27/64 x 1-1/32	.29	31/64 x 1-9/32	.32
.05	21/64 x 31/32	.32	27/64 x 1-1/32	.29	33/64 x 1-9/32	.35
.068	25/64 x 1-1/32	.35	29/64 x 1-7/32	.32	37/64 x 1-9/32	.35
.1	27/64 x 1-1/32		31/64 x 1-7/32	.38	43/64 x 1-9/32	.41

Note: Other capacities and voltage ranges available on special order.

Cap. Mfd.	100VDCW	Net Each
.25	.489 x 1-5/32	$.41
.50	.645 x 1-5/32	.47

AEROVOX TYPE AEP Plug-In Electrolytic Capacitors

Hermetically sealed, dry electrolytic capacitor furnished in round, aluminum can and 4-pin, octal-base mounting. For quick changes, readily removed and replaced in a standard octal-base tube socket.

For use where continuous service is important. They are ideally suited for experimental testing, juke boxes and communication receiver uses. These units are the commercial equivalents of Type CE51's, 2's and 3's, as listed in JAN Specification JAN C62.

Operating temperature to +65°C. Quadruple element units furnished with ground lug for cathode connection.

Type	Capacity Mfd.	WDCW	Dia. x Hght.	Net Each
SINGLE ELEMENT UNITS				
AEP5A	25	25	1-5/32 x 2-1/2	$2.21
AEP4D	20	150	1-5/32 x 2-1/2	2.32
AEP8D	40	150	1-5/32 x 2-1/2	2.41
AEP2J	10	450	1-5/32 x 2-1/2	2.38
AEP3J	15	450	1-5/32 x 2-1/2	2.47
AEP4J	20	450	1-5/32 x 2-1/2	2.53
AEP6J	30	450	1-5/32 x 2-1/2	2.62
AEP8J	40	450	1-5/32 x 2-1/2	2.68
AEP16J	80	450	1-3/8 x 3-1/2	3.26
AEP2L	10	600	1-3/8 x 4-1/4	2.47
DUAL ELEMENT UNITS				
AEP44D	20-20	150	1-5/32 x 2-1/2	$2.47
AEP88D	40-40	150	1-5/32 x 2-1/2	2.56
AEP22J	10-10	450	1-5/32 x 2-1/2	2.59
AEP44J	20-20	450	1-3/8 x 2-1/2	2.97
AEP88J	40-40	450	1-3/8 x 3	3.50
TRIPLE ELEMENT UNITS				
AEP444D	20-20-20	150	1-5/32 x 2-1/2	$2.82
AEP88D4A	40-40/20	150/25	1-5/32 x 2-1/2	2.85
AEP222J	10-10-10	450	1-5/32 x 2-1/2	3.00
AEP22J4A	10-10/20	450/25	1-5/32 x 2-1/2	2.85
AEP44J4A	20-20/20	450/25	1-3/8 x 2-1/2	3.26
AEP444J	20-20-20	450	1-3/8 x 3	3.59
AEP822J	40-10-10	450	1-3/8 x 3	3.44
QUADRUPLE ELEMENT UNITS				
AEPG444D4A	20-20-20/20	150/25	1-3/8 x 2-1/2	$3.15
AEPG2222J	10-10-10-10	450*	1-3/8 x 2-1/2	3.44
AEPG444J4A	20-20-20/20	450/25	1-3/8 x 3	3.91

*Ground lug provided for cathode connection.

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

SUN RADIO — For your AEROVOX Capacitors. Complete stocks available for prompt delivery.

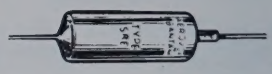
AEROVOX
TYPE P84CM
Duramic Ceramic-Cased Tubular Capacitors

New ceramic (dense steatite) encased paper tubular for performance above that of conventional paper tubulars. New thermo-setting end-seals for exceptional humidity protection—250 hour humidity test as per REC-118. Firmly imbedded terminals will not work loose or pull out. Operating temps are —55°C. to +85°C. Meets all requirements of RETMA Spec. REC-118, hi-temp range, class M.

Cap. Mfd.	200 VDCW Size Diameter x Length	Net Each	400 VDCW Size Diameter x Length	Net Each	600 VDCW Size Diameter x Length	Net Each	1600 VDCW Size Diameter x Length	Net Each	2500 VDCW Size Diameter x Length	Net Each	6000 VDCW Size Diameter x Length	Net Each
.0001									3/8 x 1-1/2	$.56	3/8 x 1-3/4	$.65
.00025									3/8 x 1-1/2	.56	3/8 x 1-3/4	.65
.0005					5/16 x 1	$.15	5/16 x 1	$.38	3/8 x 1-1/2	.56	7/16 x 1-3/4	.65
.001					5/16 x 1	.15	3/8 x 1-1/4	.38	3/8 x 1-1/2	.56	17/32 x 1-3/4	.65
.0015					5/16 x 1	.15	3/8 x 1-1/4	.38				
.002					5/16 x 1	.15	3/8 x 1-1/4	.38				
.0022					5/16 x 1	.15	3/8 x 1-1/4	.38				
.003					5/16 x 1	.15	7/16 x 1-1/4	.38	7/16 x 1-1/2	.56	5/8 x 2-1/8	.68
.0033					5/16 x 1	.15	7/16 x 1-1/4	.38				
.004					5/16 x 1	.15	7/16 x 1-1/4	.38				
.0047					5/16 x 1	.15	7/16 x 1-1/4	.38				
.005					5/16 x 1	.15	7/16 x 1-1/2	.38	17/32 x 1-9/16	.59	3/4 x 2-1/8	.68
.006					5/16 x 1	.15	17/32 x 1-9/16	.38				
.0068			5/16 x 1	$.15	3/8 x 1-1/4	.18	17/32 x 1-9/16	.38				
.01	5/16 x 1	$.15	5/16 x 1	.15	3/8 x 1-1/4	.18	17/32 x 1-9/16	.41	5/8 x 1-7/8	.62	15/16 x 2-1/8	.82
.015	3/8 x 1-1/4	.15	3/8 x 1-1/4	.15	3/8 x 1-1/4	.18	5/8 x 1-7/8	.41				
.02	3/8 x 1-1/4	.15	3/8 x 1-1/4	.15	7/16 x 1-1/4	.18	5/8 x 1-7/8	.41				
.022	3/8 x 1-1/4	.15	3/8 x 1-1/4	.15	7/16 x 1-1/4	.18	3/4 x 2	.41				
.03	3/8 x 1-1/4	.15	7/16 x 1-1/4	.18	17/32 x 1-9/16	.21	3/4 x 2	.41	13/16 x 2	.65	*1-3/16 x 2-5/8	.88
.033	3/8 x 1-1/4	.15	7/16 x 1-1/4	.18	17/32 x 1-9/16	.21	3/4 x 2	.41				
.047	7/16 x 1-1/4	.15	7/16 x 1-1/2	.18	17/32 x 1-9/16	.24	13/16 x 2-1/4	.41				
.05	7/16 x 1-1/4	.15	7/16 x 1-1/2	.18	17/32 x 1-9/16	.24	13/16 x 2-1/4	.41	25/32 x 2-5/8	.71	*1-3/16 x 3-1/8	.94
.068	17/32 x 1-9/16	.18	17/32 x 1-9/16	.21	9/16 x 1-7/8	.24	1 x 2-1/4	.41				
.1	17/32 x 1-9/16	.21	17/32 x 1-9/16	.21	5/8 x 1-7/8	.27	1 x 2-7/8	.41				
.15	17/32 x 1-3/4	.21	5/8 x 1-7/8	.21	3/4 x 2	.27			*1 x 2-5/8	.88		
.2	5/8 x 1-7/8	.21	5/8 x 1-7/8	.21	13/16 x 2-1/4	.27			*1 x 3-1/8	.97		
.22	5/8 x 1-7/8	.21	5/8 x 1-7/8	.24	13/16 x 2-1/4	.29						
.25	5/8 x 1-7/8	.24	3/4 x 2	.29	1 x 2-1/4	.32						
.33	3/4 x 2	.29	3/4 x 2	.32	1 x 2-1/4	.38						
.47	13/16 x 2-1/4	.35	1-3/16 x 2-1/4	.32	1 x 2-7/8	.41						
.5	13/16 x 2-1/4	.35	1-3/16 x 2-1/4	.35	1 x 2-7/8	.47						
.68	15/16 x 2	.44	1 x 2-1/4	.47								
1.0	1 x 2-1/4	.53	1 x 2-7/8	.53								

Cap. Mfd.	10,000 VDCW Size Diameter x Length	Net Each	12,500 VDCW Size Diameter x Length	Net Each	15,000 VDCW Size Diameter x Length	Net Each
.0001	7/16 x 2-1/4	$.68			17/32 x 2-1/2	$1:03
.00025	11/16 x 2-1/4	.68	11/16 x 2-1/4	$.85	3/4 x 2-1/2	1.03
.0005	11/16 x 2-1/4	.68			7/8 x 2-1/2	1.03
.001	15/16 x 2-1/4	.68			*1 x 2-1/2	1.03
.003	1 x 2-3/4	.71			*1-1/4 x 3	1.09
.005	*1 x 3	.79			*1-3/8 x 3-1/4	1.18
.01	*1-3/8 x 3	.94				

*Will be furnished in cardboard tube type P84M



AEROVOX
TYPE SRE BANTAM
Metal Tubular Electrolytic Capacitors

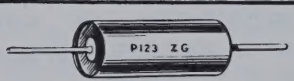
Tiniest of the Aerovox electrolytic capacitors, handles full-sized loads. Especially suitable for cramped and limited space applications in hearing aids, miniature radios and similar applications. Hermetically sealed in aluminum can and furnished with cardboard insulating sleeve. Negative grounded to can. Especially useful in low voltage miniaturized circuits.

Cap. Mfd.	Can Size	Net Each	Cap. Mfd.	Can Size	Net Each
	3V			25V	
25	3/8 x 1	$ .50	5	3/8 x 1	$ .59
50	3/8 x 1	.56	10	3/8 x 1	.59
100	3/8 x 1	.65	20	3/8 x 1	.59
200	3/8 x 1-5/8	.68	25	3/8 x 1	.59
300	1/2 x 1-1/8	.76	50	1/2 x 1	.65
500	1/2 x 1-5/8	.82	100	1/2 x 1-5/8	.79
	6V			30V	
5	3/8 x 1	.47	1	3/8 x 1	.53
25	3/8 x 1	.50	2	3/8 x 1	.53
50	3/8 x 1	.56	5	3/8 x 1	.59
100	1/2 x 1-1/8	.71	10	3/8 x 1	.59
250	1/2 x 1-5/8	.79	15	3/8 x 1-1/8	.59
			25	1/2 x 1	.62
	12V			70 V	
			10	3/8 x 1	.62
50	3/8 x 1-1/8	.59			
100	1/2 x 1	.71		150V	
200	1/2 x 1-5/8	.79	5	3/8 x 1	.59
			10	3/8 x 1-5/8	.62
	15V		15	1/2 x 1-1/8	.68
			20	1/2 x 1-5/8	.71
100	1/2 x 1-1/8	.74	25	1/2 x 1-5/8	.74

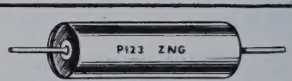
AEROVOX
TYPE FF
Photo-Flash Capacitors

Highest purity materials make this unit possible. Due to selective choice of materials and quality-control-conscious production methods these units are furnished for the rugged photoflash application calling for lowest leakage requirements. Units are furnished in molded black plastic container, highly resistant to moisture and oil. With screw-lug terminals for rapid installation.

	Cap. Mfd.	Working Voltage	Maximum Surge Voltage	Watt Seconds	Size	Net Each
FF-1	300	450	525	30	2-1/16 x 4-3/8	$6.76
FF-2	525	450	525	53	2-1/16 x 4-3/8	13.23



AEROVOX
TYPES P123ZG And P123ZNG
Metal-Cased Capacitors



Metallized paper tubulars hermetically sealed in metal tubes with glass end seals soldered for positive moisture seal.

These units are designed to meet critical operating temperatures and meet the need for increased reliability in the eleteronic field.

The P123ZG is manufactured to meet operating temperature range of —55°C. to +70°C. without derating and up to 100°C. with derating of 75%.

The P123ZNG–Aerolene impregnated— is similar to the P123ZG, with the additional feature that it will operate up to temperatures of 100°C., at full voltage rating and 125°C. with voltage derating of 75%.

Standard units (P123ZG or P123ZNG) are of case-grounded type. For case insulated, specify P123Z or P123ZN and add $0.30 to net price (add 1/16" to length).

TYPE P123ZG

Cap. Mfd.	200 V	Net Each	400 V	Net Each	600 V	Net Each
.0005	.175 x 7/16	$1.21	.235 x 7/16	$1.24	.235 x 7/16	$1.26
.001	.175 x 7/16	1.21	.235 x 7/16	1.24	.235 x 7/16	1.26
.002	.175 x 7/16	1.21	.235 x 7/16	1.24	.235 x 9/16	1.26
.003	.175 x 7/16	1.21	.235 x 9/16	1.24	.235 x 9/16	1.26
.005	.175 x 7/16	1.21	.235 x 9/16	1.24	.235 x 9/16	1.26
.01	.175 x 7/16	1.21	.235 x 9/16	1.26	.312 x 23/32	1.26
.015	.195 x 1/2	1.24	.235 x 23/32	1.26	.312 x 23 32	1.29
.02	.195 x 1/2	1.24	.235 x 23/32	1.26	.312 x 23 32	1.29
.022	.195 x 1/2	1.24	.312 x 23/32	1.26	.312 x 23 32	1.29
.033	.235 x 9/16	1.24	.312 x 23/32	1.29	.400 x 23/32	1.29
.040	.235 x 9/16	1.24	.312 x 23/32	1.29	.400 x 23/32	1.32
.047	.235 x 23/32	1.24	.400 x 23/32	1.29	.400 x 23/32	1.32
.050	.235 x 23/32	1.24	.400 x 23/32	1.32	.400 x 23/32	1.32
.068	.312 x 23/32	1.26	.400 x 1- 1/32	1.32	.400 x 1- 1/32	1.35
.10	.312 x 23/32	1.26	.400 x 1- 1/32	1.44	.500 x 1- 1 32	1.35
.15	.312 x 1- 1/32	1.38	.500 x 1- 1/32	1.44	.500 x 1- 1 32	1.59
.2	.312 x 1- 1/32	1.38	.500 x 1- 1/32	1.44	.562 x 1- 7/32	1.59
.22	.312 x 1- 1/32	1.38	.562 x 1- 1/32	1.44	.562 x 1- 7/32	1.59
.25	.312 x 1- 1/32	1.38	.562 x 1- 1/32	1.62	.562 x 1-11 32	1.59
.33	.400 x 1- 1/32	1.41	.562 x 1- 7/32	1.62	.562 x 1-23/32	1.76
.47	.400 x 1- 1/32	1.41	.562 x 1-23/32	1.62	.670 x 1-23/32	1.76
.50	.400 x 1- 1/32	1.41	.562 x 1-23/32	1.79	.670 x 1-23 32	1.76
.68	.562 x 1- 1/32	1.56	.670 x 1-23/32	1.79	.670 x 2- 7/32	2.15
1.00	.562 x 1- 7/32	1.56	.670 x 2- 7/32	1.79	.750 x 2- 7/32	2.15
1.5	.562 x 1-23/32	1.68				
2.0	.562 x 1-23/32	2.32				

TYPE P123ZNG

Capacity Mfd.	200 V	Net Each	400 V	Net Each	600 V	Net Each
.0005	.175 x 7/16	$1.73	.235 x 7/16	$1.82	.235 x 7/16	$1.85
.001	.175 x 7/16	1.73	.235 x 7/16	1.82	.235 x 7/16	1.85
.002	.175 x 7/16	1.73	.235 x 7/16	1.82	.235 x 9/16	1.85
.003	.175 x 7/16	1.76	.235 x 9/16	1.85	.235 x 9/16	1.91
.005	.175 x 7/16	1.82	.235 x 9/16	1.85	.235 x 9/16	1.91
.01	.175 x 7/16	1.85	.235 x 9/16	1.85	.312 x 3/4	1.91
.015	.195 x 1/2	1.85	.235 x 9/16	1.91	.312 x 3 4	1.94
.02	.195 x 1/2	1.85	.235 x 3/4	1.91	.312 x 3 4	1.94
.022	.195 x 1/2	1.85	.235 x 3/4	1.91	.312 x 3/4	1.94
.033	.235 x 9/16	1.85	.312 x 3/4	1.91	.400 x 3/4	1.94
.040	.235 x 9/16	1.85	.312 x 3/4	1.94	.400 x 3/4	2.00
.047	.235 x 9/16	1.85	.312 x 3/4	1.94	.400 x 3/4	2.00
.050	.235 x 9/16	1.85	.312 x 3/4	1.94	.400 x 3/4	2.00
.068	.312 x 3/4	1.91	.312 x 1-1/16	2.00	.400 x 1-1/16	2.03
.10	.312 x 3/4	1.91	.400 x 1-1/16	2.00	.400 x 1-1/16	2.03
.15	.312 x 1-1/16	2.09	.500 x 1-1/16	2.18	.500 x 1-1/16	2.38
.2	.312 x 1-1/16	2.09	.500 x 1-1/16	2.18	.562 x 1-1/16	2.38
.22	.312 x 1-1/16	2.09	.500 x 1-1/16	2.18	.562 x 1-1/16	2.38
.25	.312 x 1-1/16	2.09	.500 x 1-1/16	2.18	.562 x 1-1/4	2.38
.33	.400 x 1-1/16	2.12	.562 x 1-1/4	2.44	.562 x 1-3/4	2.65
.47	.400 x 1-1/16	2.12	.562 x 1-3/4	2.44	.670 x 1-3/4	2.65
.50	.400 x 1-1/16	2.12	.562 x 1-3/4	2.44	.670 x 1-3/4	2.65
.68	.500 x 1-1/16	2.35	.670 x 1-3/4	2.71	.670 x 1-3/4	3.23
1.00	.562 x 1-1/16	2.35	.670 x 2-1/4	2.71	.750 x 2-1/4	3.23
1.5	.562 x 1-1/4	3.50				
2.0	.562 x 1-3/4	3.50				

AEROVOX

TYPE AFH (85° C)

Twist-Prong Base
Electrolytic Capacitors

Type AFH Capacitors are small, round can, easily mounted electrolytic capacitors. Hermetically encased in compact, sealed, aluminum cans. Internal construction is of the highest purity material obtainable.

For use over a wide temperature range, with minimum capacity change. These units are designed for use in filter audio bypass, television, radio and amplifier applications.

Designed for heavy, ripple current and high surge voltage application.

AFH SINGLES

Catalog No.	Capacity Mfd.	Voltage	Dia. x Hght.	Net Each
1-00-50	2000	6	1-3/8 x 2	$1.50
1-01	3000	10	1-3/8 x 3	1.71
1-01-25	225	15	3/4 x 2	1.03
1-02	1000	15	1 x 3	1.50
1-03	2000	15	1-3/8 x 3	2.03
1-04	3000	15	1-3/8 x 3	2.06
1-05	25	25	3/4 x 2	.74
1-06	40	25	3/4 x 2	.79
1-07	100	25	3/4 x 2	.94
1-08	500	25	1 x 2-1/2	1.50
1-10	1000	25	1-3/8 x 2	2.09
1-10-10	4	50	3/4 x 2	.74
1-11	100	50	3/4 x 2	.97
1-12	150	50	3/4 x 2	1.06
1-13	500	50	1-3/8 x 2-1/2	1.56
1-14	1000	50	1-3/8 x 3-1/2	2.21
1-14-50	1500	50	1-3/8 x 4	2.26
1-15	25	150	1 x 2	.88
1-16	30	150	1 x 2	.91
1-17	40	150	1 x 2	.94
1-18	50	150	1 x 2	.97
1-19	60	150	1 x 2	1.03
1-20	80	150	1 x 2	1.09
1-21	100	150	1 x 2	1.18
1-22	120	150	1 x 3	1.24
1-23	140	150	1 x 3	1.26
1-24	150	150	1 x 3	1.26
1-25	40	200	1 x 2	1.00
1-26	15	250	1 x 2	.91
1-27	20	250	3/4 x 2	.94
1-28	30	250	3/4 x 2	1.00
1-29	40	250	1 x 2	1.06
1-30	60	250	1 x 2-1/2	1.21
1-31	80	250	1 x 3	1.26
1-31-25	100	250	1 x 3	1.59
1-31-75	150	250	1-3/8 x 2-1/2	1.82
1-32	15	300	1 x 2	.94
1-33	30	300	1 x 2	1.03
1-34	50	300	1 x 2-1/2	1.24
1-35	80	300	1 x 3	1.50
1-36	100	300	1 x 3-1/2	1.71
1-37	125	300	1-3/8 x 3	2.06
1-37-25 (AFHS)	150	300	1-3/8 x 3	2.06
1-38	15	350	1 x 2	.97
1-39	30	350	1 x 2	1.12
1-40	40	350	1 x 2-1/2	1.18
1-41	50	350	1 x 3	1.24
1-42	80	350	1-3/8 x 2-1/2	1.68
1-43	125	350	1-3/8 x 3	2.32
1-44	10	400	3/4 x 2	.88
1-45	20	400	1 x 2	1.03
1-46	40	400	1-3/8 x 2	1.18
1-47	80	400	1-3/8 x 2-1/2	1.73
1-48	10	450	1 x 2	.91
1-49	15	450	1 x 2	1.00
1-50	20	450	1 x 2	1.06
1-51	30	450	1 x 2-1/2	1.15
1-52	40	450	1 x 3	1.21
1-53	50	450	1 x 3	1.38
1-54	80	450	1-3/8 x 2-1/2	1.53
1-55	80	450	1-3/8 x 3	1.79
1-55-20	100	450	1-3/8 x 3	2.03
1-56	30	475	1 x 3	1.18
1-56-10	40	475	1-3/8 x 2	1.47
1-57	90	475	1-3/8 x 3-1/2	2.06
1-58	10	500	1 x 2	.94
1-59	20	500	1 x 2-1/2	1.09
1-60	30	500	1 x 3	1.18
1-61	40	500	1 x 3-1/2	1.47
1-62	80	500	1-3/8 x 3	1.88
1-63	90	500	1-3/8 x 3-1/2	2.06
1-64	10	525	1 x 2	1.00
1-65	10 ohm-30 cps	3 VNP	3/4 x 2	1.18
1-66	0.5ohm-15,750cps	3 VNP	1 x 2	1.29
1-67	1 ohm-60 cps	3 VNP	1-3/8 x 3	2.35
1-68	125	450	1-3/8 x 4	2.21
1-69 (AFHS)	120	150	1 x 3	1.21
1-70 (AFHS)	140	150	1 x 3	1.24
1-71 (AFHS)	200	150	1-3/8 x 2-1/2	1.44
1-72 (AFHS)	300	150	1-3/8 x 3	1.65
1-73 (AFHS)	125	350	1-3/8 x 3	2.15

AFH DUALS

2-01	1000-500	6 NP	1-3/8 x 2	$2.29
2-02	1000-1000	15	1 x 3-1/2	2.59
2-03	20-20	25	1 x 2	.85
2-04	40-40	25	1 x 2	.94
2-05	150-50	25	1 x 2	1.12
2-06	50-50	50	1 x 2	1.00
2-06-20	100-100	50	1 x 2	1.24
2-07	10-20	150	1 x 2	.94
2-08	20-20	150	1 x 2	1.00
2-09	30-15	150	1 x 2	1.03
2-10	30-20	150	1 x 2	1.03
2-11	30-30	150	1 x 2	1.09
2-12	40-20	150	1 x 2	1.06
2-13	40-30	150	1 x 2	1.09
2-14	40-40	150	1 x 2	1.12
2-15	50-30	150	1 x 2	1.18
2-16	50-50	150	1 x 2-1/2	1.26
2-17	60-60	150	1 x 3	1.38
2-18	75-75	150	1 x 3	1.53
2-19	80-40	150	1 x 3	1.35

AFH DUALS (cont.)

Catalog No.	Capacity Mfd.	Voltage	Dia. x Hght.	Net Each
2-20	80-80	150	1-3/8 x 2	1.56
2-22	200-125	150	1-3/8 x 3	2.21
2-23	200-200	150	1-3/8 x 3	2.35
2-24	60-60	200	1-3/8 x 2	1.50
2-25	10-10	250	1 x 2	1.00
2-26	20-20	250	1 x 2	1.12
2-27	30-30	250	1 x 2-1/2	1.35
2-28	40-20	250	1 x 2-1/2	1.29
2-29	40-40	250	1 x 3	1.47
2-30 (AFHS)	150-150	250	1-3/8 x 4	3.03
2-31	10-10	300	1 x 2	1.03
2-32	15-15	300	1 x 2	1.09
2-33	50-50	300	1-3/8 x 2-1/2	1.97
2-33-75	80-60	300	1-3/8 x 2-1/2	2.21
2-34	80-80	300	1-3/8 x 3	2.38
2-35	120-20	300	1-3/8 x 3	2.35
2-36	15-15	350	1 x 2	1.32
2-37	20-20	350	1 x 2-1/2	1.35
2-38	30-20	350	1 x 3	1.53
2-39	30-30	350	1 x 3	1.71
2-40	50-30	350	1-3/8 x 2-1/2	1.85
2-41	80-80	350	1-3/8 x 3-1/2	2.76
2-41-10	90-40	350	1-3/8 x 3	2.53
2-42	10-30	400	1 x 3	1.35
2-43	15-15	400	1 x 2-1/2	1.32
2-44	60-60	400	1-3/8 x 3-1/2	2.59
2-44-90	75-75	400	1-3/8 x 4	2.85
2-45	80-10	400	1-3/8 x 3	2.00
2-45-10	80-20	400	1-3/8 x 3	2.15
2-45-40	80-60	400	1-3/8 x 4	2.85
2-45-60	120-40	400	1-3/8 x 4	3.09
2-46	5-5	450	1 x 2	.94
2-47	10-10	450	1 x 2	1.12
2-48	15-10	450	1 x 2-1/2	1.21
2-49	15-15	450	1 x 2-1/2	1.32
2-50	20-10	450	1 x 2-1/2	1.32
2-51	20-20	450	1 x 3	1.50
2-52	30-10	450	1 x 3	1.47
2-53	30-15	450	1-3/8 x 2	1.56
2-54	30-30	450	1-3/8 x 2	1.79
2-56	40-20	450	1-3/8 x 2-1/2	1.76
2-57	40-40	450	1-3/8 x 3	2.03
2-58	50-40	450	1-3/8 x 3	2.15
2-59	50-50	450	1-3/8 x 3	2.26
2-60	60-20	450	1-3/8 x 3	2.09
2-61	60-40	450	1-3/8 x 3-1/2	2.32
2-61-50	60-60	450	1-3/8 x 4	2.65
2-62	80-10	450	1-3/8 x 3	2.12
2-63	80-20	450	1-3/8 x 3-1/2	2.29
2-64	80-40	450	1-3/8 x 3-1/2	2.56
2-64-25	100-40	450	1-3/8 x 4	2.85
2-64-50	15-15	475	1 x 2-1/2	1.38
2-65	30-10	475	1-3/8 x 2	1.53
2-66	40-10	475	1-3/8 x 2-1/2	1.82
2-66-50	80-40	475	1-3/8 x 4	2.97
2-66-60	80-50	475	1-3/8 x 4	3.06
2-67	10-10	500	1 x 2-1/2	1.15
2-69	20-20	500	1-3/8 x 2-1/2	1.68
2-70	25-40	500	1-3/8 x 3	2.15
2-71	30-10	500	1-3/8 x 2-1/2	1.53
2-72	40-40	500	1-3/8 x 3	2.59
2-73	60-40	500	1-3/8 x 3-1/2	2.71
2-74	250-1000	10/6	1-3/8 x 2	1.68
2-75	250-2000	10/6	1-3/8 x 2	1.94
2-76	50-500	150/5	1 x 3	1.44
2-77	40-20	150/50	1 x 2	1.00
2-78	40-150	150/25	1 x 2	1.21
2-78-10	50-150	150/25	1 x 2-1/2	1.29
2-79	40-20	250/25	1 x 2	1.18
2-80	50-100	250/50	1-3/8 x 2	1.53
2-81	100-150	250/50	1-3/8 x 3	2.15
2-82	20-20	300/25	1 x 2	1.09
2-82-60	20-60	300/250	1 x 3	1.62
2-83	30-30	300/350	1 x 3	1.56
2-84	20-20	350/25	1 x 2	1.12
2-85	40-20	350/25	1 x 2-1/2	1.38
2-86	40-10	350/200	1-3/8 x 2	1.41
2-86-15	40-10	350/250	1 x 3	1.44
2-86-30	60-80	350/250	1-3/8 x 3-1/2	2.03
2-86-45	35-100	400/50	1 x 3	1.53
2-86-60	40-100	400/50	1-3/8 x 2	1.59
2-86-75	60-80	400/250	1-3/8 x 4	2.29
2-87	10-20	450/25	1 x 2	1.00
2-88	20-20	450/25	1 x 2	1.18
2-89	40-20	450/25	1 x 3	1.44
2-90	80-20	450/25	1-3/8 x 3	2.03
2-90-50	50-100	450/50	1-3/8 x 2-1/2	1.76
2-91	80-50	450/50	1-3/8 x 3	2.06
2-91-50	80-100	450/50	1-3/8 x 3	2.21
2-92	10-50	450/100	1-3/8 x 2	1.21
2-93	20-100	450/100	1-3/8 x 2	1.71
2-94	30-40	450/150	1-3/8 x 2	1.47
2-94-30	30-200	450/150	1-3/8 x 3	2.06
2-94-60	20-50	450/250	1 x 3	1.65
2-94-90	10-100	450/350	1-3/8 x 3	2.35
2-95	20-80	450/350	1-3/8 x 3	2.12
2-96	40-10	450/350	1-3/8 x 2	1.53
2-97	40-40	450/350	1-3/8 x 3	1.94
2-99	75-50	475/50	1-3/8 x 3	2.15
2-99-75	40-80	475/200	1-3/8 x 2-1/2	2.15
2-100	20-100	475/300	1-3/8 x 3	1.97
2-100-50	20-100	475/400	1-3/8 x 4	2.65
2-101	40-40	475/400	1-3/8 x 3	2.27

AFH DUALS (cont.)

Catalog No.	Capacity Mfd.	Voltage	Dia. x Hght.	Net Each
2-102	80-50	500/50	1-3/8 x 3-1/2	2.23
2-103	60-80	500/150	1-3/8 x 3	2.21
2-104	40-50	500/200	1-3/8 x 3	1.94
2-105	15-20	500/300	1 x 2-1/2	1.35
2-106	20-100	500/300	1-3/8 x 3	2.29
2-107	40-40	500/400	1-3/8 x 3	2.21
2-108	0.5ohm-15750cps	12	1-3/8 x 2	2.12
	2.5 ohm-60 cps	6		
2-109 (AFHS)	200-5	150	1-3/8 x 2-1/2	1.59
2-110 (AFHS)	100-100	200	1-3/8 x 3	2.06

AFH TRIPLES

3-00-50	1500-1500-1500	3	1 x 3-1/2	3.53
3-01	20-20-20	25	1 x 2	1.15
3-02	40-40-40	25	1 x 2	1.26
3-03	30-30-30	50	1 x 2	1.26
3-05	20-20-20	150	1 x 2	1.35
3-06	30-30-10	150	1 x 2	1.38
3-07	40-20-10	150	1 x 2	1.38
3-08	40-20-20	150	1 x 2	1.41
3-09	40-30-20	150	1 x 2	1.47
3-10	40-40-40	150	1 x 2-1/2	1.53
3-11	40-70-40	150	1 x 3	1.73
3-11-20	50-40-10	150	1 x 2-1/2	1.50
3-12	60-40-20	150	1 x 3	1.62
3-13	80-40-20	150	1 x 3	1.71
3-13-15	120-80-40	150	1-3/8 x 3	2.23
3-13-30	120-120-40	150	1-3/8 x 3	2.38
3-13-50	200-100-60	150	1-3/8 x 3-1/2	2.68
3-13-75	200-150-150	200	1-3/8 x 4	4.41
3-14	10-15-15	250	1 x 2	1.44
3-16	15-15-30	250	1 x 2	1.62
3-17	20-20-10	250	1 x 2	1.47
3-18	30-20-10	250	1 x 2-1/2	1.59
3-19	40-20-10	250	1 x 3	1.68
3-20	40-20-20	250	1 x 3	1.71
3-21	80-80-60	250	1-3/8 x 3	2.88
3-22	10-10-10	300	1 x 2	1.41
3-24	20-80-10	300	1-3/8 x 2-1/2	2.23
3-25	60-20-10	300	1-3/8 x 2	2.03
3-25-50	80-40-40	300	1-3/8 x 3-1/2	2.79
3-26	120-50-40	300	1-3/8 x 4	3.32
3-27	10-10-10	350	1 x 2-1/2	1.41
3-28	20-20-10	350	1 x 3	1.73
3-29	60-40-20	350	1-3/8 x 3-1/2	2.50
3-29-25	60-50-50	350	1-3/8 x 4	2.88
3-29-50	80-60-60	350	1-3/8 x 4	3.26
3-29-75	90-40-20	350	1-3/8 x 4	3.09
3-30	10-10-10	400	1 x 2-1/2	1.41
3-30-75	90-10-5	400	1-3/8 x 3	2.59
3-31	10-10-10	450	1 x 3	1.53
3-32	10-30-30	450	1-3/8 x 3	2.21
3-33	15-15-10	450	1 x 3	1.73
3-34	15-15-15	450	1 x 3	1.82
3-35	20-10-10	450	1 x 3	1.73
3-36	20-20-20	450	1-3/8 x 2-1/2	2.12
3-37	30-20-20	450	1-3/8 x 3	2.26
3-38	30-30-20	450	1-3/8 x 3	2.41
3-39	30-30-30	450	1-3/8 x 3	2.56
3-40	30-60-10	450	1-3/8 x 3	2.65
3-41	40-10-10	450	1-3/8 x 3	1.97
3-42	40-30-20	450	1-3/8 x 3	2.53
3-43	40-40-10	450	1-3/8 x 3	2.47
3-43-50	40-40-20	450	1-3/8 x 3	2.62
3-44	40-40-40	450	1-3/8 x 3-1/2	2.88
3-44-50	50-40-30	450	1-3/8 x 4	2.88
3-45	60-20-20	450	1-3/8 x 3-1/2	2.71
3-45-25	60-40-20	450	1-3/8 x 3-1/2	2.94
3-45-50	80-40-10	450	1-3/8 x 4	2.97
3-46	80-40-20	450	1-3/8 x 4	3.18
3-47	10-10-10	475	1 x 3	1.59
3-48	30-20-20	475	1-3/8 x 3	2.32
3-49	30-30-10	475	1-3/8 x 3	2.35
3-49-10	30-30-20	475	1-3/8 x 3	2.79
3-50	40-10-10	475	1-3/8 x 3	2.26
3-50-05	40-20-20	475	1-3/8 x 3	2.79
3-50-10	40-30-30	475	1-3/8 x 4	3.03
3-51	10-10-10	500	1 x 3	1.59
3-52	30-20-20	500	1-3/8 x 3	2.47
3-53	40-10-10	500	1-3/8 x 3	2.29
3-54	40-40-10	500	1-3/8 x 3-1/2	2.97
3-55	100/50-25	100/25	1 x 3	1.56
3-57	15-15/1200	150/2	1 x 2	1.76
3-58	30-20/100	150/6	1 x 2	1.41
3-59	20-20/100	150/10	1 x 2	1.38
3-60	20-20/250	150/10	1 x 2	1.53
3-61	30-30/200	150/10	1 x 2	1.47
3-62	40-20/150	150/10	1 x 2	1.41
3-63	40-20/200	150/10	1 x 2-1/2	1.59
3-64	40-20/250	150/10	1 x 2-1/2	1.59
3-64-50	80-20/200	150/10	1-3/8 x 2	1.68
3-64-60	80-30/300	150/10	1-3/8 x 2	1.85
3-65	20/250-100	150/15	1-3/8 x 2	1.71
3-66	80-20/100	150/15	1-3/8 x 2	1.65
3-67	20-20/20	150/25	1 x 2	1.29
3-68	20-20/200	150/25	1 x 3	1.53
3-69	30-20/20	150/25	1 x 2	1.32
3-70	30-30/20	150/25	1 x 2	1.35
3-72	40-20/20	150/25	1 x 2	1.35
3-73	40-20/100	150/25	1 x 3	1.47

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

AEROVOX

TYPE AFH (85° C)

Twist-Prong Base
Electrolytic Capacitors

AFH TRIPLES (cont.)

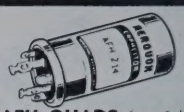
Catalog No.	Capacity Mfd.	Voltage	Dia. x Hght.	Net Each
3-74	40-20/200	150/25	1 x 3	1.59
3-75	40-30/20	150/25	1 x 2-1/2	1.38
3-76	40-40/20	150/25	1 x 2-1/2	1.41
3-76-50	40-40/200	150/25	1 x 3	1.65
3-76-55	40-40/250	150/25	1 x 3	1.85
3-77	50-30/20	150/25	1 x 2-1/2	1.47
3-78	50-30/100	150/25	1 x 3	1.59
3-79	50-50/20	150/25	1 x 3	1.56
3-80	60-20/20	150/25	1 x 2	1.50
3-81	60-40/20	150/25	1 x 2-1/2	1.56
3-82	80-40/20	150/25	1 x 2-1/2	1.65
3-82-40	80-40/300	150/25	1-3/8 x 2-1/2	2.18
3-83	120-60/20	150/25	1-3/8 x 2-1/2	1.97
3-84	30-20/20	200/25	1 x 2	1.50
3-85	90-90/20	200/50	1-3/8 x 3	2.26
3-86	100-10/40	200/50	1-3/8 x 2	1.85
3-86-50	30-20/40	200/150	1 x 2-1/2	1.59
3-87	15-15/20	250/25	1 x 2	1.38
3-88	20-15/20	250/25	1 x 2	1.38
3-89	30-30/20	250/25	1 x 2-1/2	1.65
3-90	70-70/20	250/50	1-3/8 x 3	2.29
3-91	90-90/20	250/50	1-3/8 x 3	2.71
3-92	15/20-20	250/150	1 x 2	1.41
3-93	40-20/10	250/150	1-3/8 x 2	1.59
3-94 (AFHS)	40-40/10	250/200	1-3/8 x 2	1.82
3-96	80-80/10	250/450	1-3/8 x 3	2.47
3-97	20-20/20	300/25	1 x 2	1.62
3-98	40-15/20	300/25	1 x 2-1/2	1.73
3-99	30-30/25	300/50	1 x 3	1.71
3-99-75	100-10/60	300/50	1-3/8 x 2-1/2	2.38
3-99-85	200-20/10	300/100	1-3/8 x 4	2.88
3-99-95	20/150-80	300/150	1-3/8 x 3	2.32
3-100	40-40/20	300/150	1-3/8 x 2	2.12
3-101	10-10/15	300/250	1 x 2	1.44
3-101-20	60/30-30	300/250	1-3/8 x 2-1/2	2.21
3-101-40	100/60-20	300/250	1-3/8 x 4	2.88
3-101-60	200/60-20	300/250	1-3/8 x 4	3.41
3-102	120/15-10	300/450	1-3/8 x 3-1/2	2.65
3-102-90	5/100-40	350/25	1 x 2	1.32
3-103	10-10/20	350/25	1 x 2	1.32
3-104	15-10/20	350/25	1 x 2	1.47
3-105	15-15/20	350/25	1 x 2-1/2	1.59
3-105-50	20-5/100	350/25	1 x 3	1.53
3-106	20-10/20	350/25	1 x 2-1/2	1.50
3-107	20-20/20	350/25	1 x 2-1/2	1.65
3-108	30-10/20	350/25	1 x 2-1/2	1.79
3-109	30-20/20	350/25	1 x 3	1.82
3-110	30-30/20	350/25	1-3/8 x 2	2.00
3-111	40-40/50	350/25	1-3/8 x 2-1/2	2.21
3-111-90	10-5/30	350/50	1 x 2	1.29
3-112	10-5/150	350/50	1 x 3	1.59
3-112-10	20-5/150	350/50	1 x 3	1.73
3-112-80	30-20/100	350/75	1-3/8 x 2-1/2	2.35
3-113	40-20/10	350/100	1-3/8 x 2	1.68
3-114	20-40/10	350/150	1 x 3	1.88
3-114-50	30-20/100	350/150	1-3/8 x 2-1/2	2.35
3-115	20-10/5	350/250	1 x 2-1/2	1.50
3-116	30/20-10	350/250	1 x 3	1.76
3-117	30-10/20	350/250	1 x 3	1.79
3-119	15-15/40	400/25	1 x 2-1/2	1.65
3-120	20-20/20	400/25	1 x 3	1.68
3-121	30-10/150	400/50	1-3/8 x 2-1/2	2.00
3-122	80-40/150	400/50	1-3/8 x 4	3.03
3-122-30	100-10/20	400/50	1-3/8 x 3-1/2	2.65
3-123	80/20-10	400/300	1-3/8 x 3-1/2	2.50
3-123-10	20-10/10	400/350	1 x 3	1.59
3-123-30	20-10/40	400/350	1 x 4	2.00
3-123-40	20-20/10	400/350	1 x 3	1.76
3-123-80	80-20/10	400/350	1-3/8 x 3	2.53
3-124	10-10/10	450/25	1 x 2	1.38
3-125	10-10/20	450/25	1 x 2	1.41
3-126	10-20/20	450/25	1 x 2-1/2	1.59
3-127	15-15/20	450/25	1 x 2-1/2	1.59
3-127-10	15-15/40	450/25	1 x 2-1/2	1.62
3-128	20-15/20	450/25	1 x 3	1.71
3-129	20-20/20	450/25	1 x 3	1.79
3-130	30/100-25	450/25	1-3/8 x 2	1.73
3-131	30-30/20	450/25	1-3/8 x 2-1/2	2.09
3-131-30	30-30/125	450/25	1-3/8 x 3	2.32
3-132	40-20/20	450/25	1-3/8 x 2-1/2	2.06
3-133	40-40/20	450/25	1-3/8 x 3	2.32
3-134	40-40/40	450/25	1-3/8 x 3	2.32
3-134-50	80-10/125	450/25	1-3/8 x 3	2.59
3-135	80-40/100	450/25	1-3/8 x 4	3.00
3-136	10-10/40	450/50	1 x 2-1/2	1.47
3-137	20-10/40	450/50	1 x 3	1.65
3-138	20-10/50	450/50	1 x 3	1.68
3-138-30	30-10/150	450/50	1-3/8 x 2-1/2	2.06
3-138-40	30-15/150	450/50	1-3/8 x 3	2.18
3-139	30-30/40	450/50	1-3/8 x 3	2.15
3-139-50	35-25/100	450/50	1-3/8 x 3	2.32
3-139-75	40-10/40	450/50	1-3/8 x 2-1/2	1.91
3-140	40-10/100	450/50	1-3/8 x 3	2.53
3-140-50	40-30/25	450/50	1-3/8 x 2-1/2	2.21
3-141	40-40/80	450/50	1-3/8 x 3-1/2	2.41
3-142	40-40/100	450/50	1-3/8 x 3-1/2	2.53
3-142-20	60-40/75	450/50	1-3/8 x 4	2.71
3-142-40	80-20/100	450/50	1-3/8 x 4	2.82
3-142-60	80/100-20	450/50	1-3/8 x 3	2.50
3-142-80	30-30/125	450/75	1-3/8 x 3	2.65
3-143	10-10/50	450/100	1-3/8 x 2	1.56
3-144	30-20/30	450/150	1-3/8 x 2-1/2	2.06
3-145	40/90-50	450/150	1-3/8 x 3	2.32
3-146	40-10/80	450/150	1-3/8 x 3	2.21
3-147	40-40/40	450/150	1-3/8 x 3-1/2	2.41
3-148	40-10/80	450/200	1-3/8 x 3	2.29
3-148-40	40-40/60	450/200	1-3/8 x 3-1/2	2.62
3-148-50	40-40/100	450/200	1-3/8 x 4	2.91
3-149	20/40-10	450/250	1-3/8 x 2	1.85

AFH TRIPLES (cont.)

Catalog No.	Capacity Mfd.	Voltage	Dia. x Hght.	Net Each
3-149-40	5/80-40	450/300	1-3/8 x 3	2.44
3-149-60	10/100-20	450/300	1-3/8 x 3	2.56
3-149-80	15-10/120	450/300	1-3/8 x 4	2.65
3-150	15-15/10	450/300	1 x 3	1.68
3-151	20/15-10	450/300	1 x 3	1.68
3-152	15-5/15	450/350	1 x 3	1.68
3-152-50	20/15-15	450/350	1 x 3	1.91
3-153	20-20/60	450/350	1-3/8 x 3	2.38
3-153-30	20/40-10	450/350	1-3/8 x 2-1/2	2.06
3-153-60	20/80-10	450/350	1-3/8 x 3	2.50
3-154	40-10/10	450/350	1-3/8 x 2	1.94
3-154-20	40-40/60	450/350	1-3/8 x 4	2.88
3-154-30	40-40/80	450/350	1-3/8 x 4	3.26
3-154-60	60/20-20	450/350	1-3/8 x 3-1/2	2.53
3-155	40-40/10	450/500	1-3/8 x 3-1/2	2.44
3-155-15	10-10/150	475/50	1 x 3	1.76
3-155-30	25-10/20	475/50	1 x 3	1.73
3-155-45	40/80-10	475/300	1-3/8 x 3-1/2	2.82
3-155-60	20-10/100	475/400	1-3/8 x 4	3.09
3-155-75	40/80-10	475/450	1-3/8 x 4	3.23
3-156	10-10/100	500/50	1 x 3-1/2	1.68
3-157	20-10/100	500/50	1 x 4	1.94
3-158	30-10/20	500/50	1-3/8 x 2-1/2	1.82
3-159	40-40/100	500/200	1-3/8 x 4	3.44
3-160	10-10/5	500/350	1 x 2-1/2	1.47
3-161	20-20/60	500/450	1-3/8 x 3-1/2	2.85
3-162	40/25/130	150/25/15	1 x 3	1.94
3-163	100/50/25	150/50/25	1 x 3	1.76
3-164	80/40/50	250/150/50	1-3/8 x 2-1/2	1.38
3-165	100/60/20	300/150/25	1-3/8 x 3	2.47
3-166	20/50/100	350/100/75	1 x 3	1.82
3-167	10/50/100	350/150/50	1 x 3	1.68
3-167-50	125/5/100	350/200/75	1-3/8 x 3-1/2	3.12
3-168	50/10/500	350/250/5	1-3/8 x 2-1/2	2.12
3-169	30/30/20	350/300/25	1 x 3	1.85
3-169-50	30/50/20	350/300/25	1-3/8 x 2-1/2	2.12
3-170	20/40/10	350/300/150	1 x 3-1/2	1.85
3-170-50	40/20/10	350/300/200	1-3/8 x 2	1.94
3-171	60/40/20	400/300/25	1-3/8 x 3-1/2	2.47
3-172	10/40/10	400/300/150	1-3/8 x 2	1.71
3-173	55/50/80	400/300/250	1-3/8 x 3-1/2	3.15
3-174	10/50/30	400/350/25	1 x 3	1.82
3-175	10/50/100	450/150/25	1 x 3	1.62
3-176	40/40/130	450/150/50	1-3/8 x 3	2.21
3-177	40/100/50	450/150/50	1-3/8 x 3	2.32
3-177-20	10/50/100	450/150/75	1 x 3	1.91
3-177-40	20/50/100	450/150/75	1-3/8 x 2	2.00
3-177-80	20/80/50	450/200/150	1-3/8 x 2-1/2	2.12
3-178	20/60/100	450/250/25	1-3/8 x 2-1/2	2.15
3-179	10/40/10	450/300/150	1-3/8 x 2	1.82
3-179-50	30/10/10	450/300/150	1 x 3	1.73
3-180	10/10/20	450/350/25	1 x 2	1.35
3-180-50	10/10/50	450/350/25	1 x 3	1.41
3-181	30/15/40	450/350/25	1-3/8 x 2	1.88
3-181-50	30/40/50	450/350/25	1 x 4	2.18
3-182	20/80/100	450/350/50	1-3/8 x 3-1/2	2.65
3-183	15/20/20	450/350/250	1-3/8 x 2	1.73
3-184	20/15/10	450/350/300	1 x 3	1.79
3-185	10/30/150	450/400/5	1 x 3	1.76
3-186	30/50/40	450/400/25	1-3/8 x 3	2.29
3-186-80	60/80/20	450/400/250	1-3/8 x 4	3.21
3-186-90	4/40/40	450/400/300	1-3/8 x 2-1/2	2.18
3-187	10/30/30	450/400/300	1-3/8 x 2-1/2	1.97
3-187-25	20/50/20	475/50/25	1 x 3	1.62
3-187-75	80/80/50	475/150/50	1-3/8 x 4	2.85
3-188	10/100/40	475/200/50	1-3/8 x 2-1/2	1.94
3-188-50	40/40/100	475/250/100	1-3/8 x 3	2.41
3-189	20/20/40	475/300/25	1-3/8 x 2	1.79
3-189-70	10/4/40	475/350/300	1-3/8 x 2	1.76
3-190	40/40/25	475/450/50	1-3/8 x 3	2.59
3-190-80	10/45/100	475/450/200	1-3/8 x 3	2.47
3-191	10/100/40	500/200/50	1-3/8 x 2-1/2	1.97
3-192	40/40/100	500/250/50	1-3/8 x 3	2.53
3-193	20/20/40	500/300/25	1-3/8 x 2	1.82
3-193-25	20/40/100	500/300/25	1-3/8 x 2-1/2	2.12
3-194	40/40/25	500/400/50	1-3/8 x 3	2.53
3-195	30/20/20	500/500/25	1-3/8 x 2-1/2	2.09
3-196 (AFHS)	100-80/200	150/10	1-3/8 x 2-1/2	2.12
3-197 (AFHS)	100/200-30	300/150	1-3/8 x 4	2.97

AFH QUADS

4-01	40-40-40-30	150	1-3/8 x 2	1.97
4-01-40	100-80-60-40	150	1-3/8 x 3	2.73
4-01-80	40-20-10-10	300	1-3/8 x 2	2.32
4-02	40-40-20-10	300	1-3/8 x 2-1/2	2.68
4-02-10	40-40-30-20	300	1-3/8 x 3	2.85
4-02-30	60-40-10-10	300	1-3/8 x 2-1/2	2.68
4-03	10-10-10-10	350	1-3/8 x 2	1.82
4-04	40-20-20-10	350	1-3/8 x 2-1/2	2.56
4-04-50	40-40-40-40	350	1-3/8 x 4	3.53
4-05	80-10-10-10	350	1-3/8 x 3	2.68
4-06	30-30-20-20	400	1-3/8 x 3	2.85
4-06-25	40-35-10-10	400	1-3/8 x 3	2.62
4-06-40	50-40-30-20	400	1-3/8 x 4	3.23
4-06-75	80-10-10-10	400	1-3/8 x 3-1/2	2.76
4-07	80-20-10-10	400	1-3/8 x 3-1/2	2.97
4-09	5-5-5-5	450	1-3/8 x 2	1.76
4-10	10-10-10-10	450	1-3/8 x 2	1.97
4-11	15-30-30-10	450	1-3/8 x 3	2.76
4-12	15-30-30-30	450	1-3/8 x 4	3.12
4-13	20-10-10-10	450	1-3/8 x 2-1/2	2.18
4-14	20-20-20-20	450	1-3/8 x 2-1/2	2.76
4-15	30-15-15-15	450	1-3/8 x 3	2.62
4-15-10	30-20-20-10	450	1-3/8 x 3	2.71
4-15-30	30-30-20-20	450	1-3/8 x 3	3.06
4-16	35-35-10-5	450	1-3/8 x 3-1/2	2.73
4-17	40-10-10-10	450	1-3/8 x 3	2.44
4-18	40-20-10-10	450	1-3/8 x 3	2.62



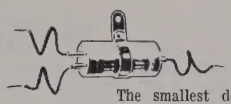
AFH QUADS (cont.)

Catalog No.	Capacity Mfd.	Voltage	Dia. x Hght.	Net Each
4-18-10	450	40-35-10-10	1-3/8 x 3	2.82
4-18-20	450	40-40-5-5	1-3/8 x 4	2.76
4-18-30	450	40-40-20-20	1-3/8 x 4	3.26
4-18-40	450	40-40-30-30	1-3/8 x 4	3.56
4-18-45	450	40-40-40-40	1-3/8 x 4	3.79
4-18-50	450	60-20-20-20	1-3/8 x 4	3.32
4-18-60	450	60-30-10-2	1-3/8 x 3	3.00
4-18-75	450	70-10-10-5	1-3/8 x 3	2.79
4-18-80	450	80-10-10-10	1-3/8 x 4	2.97
4-19	475	10-10-10-10	1-3/8 x 2	2.06
4-19-10	475	20-20-10-10	1-3/8 x 2-1/2	2.56
4-19-20	475	20-20-20-20	1-3/8 x 3	3.06
4-19-40	475	40-10-10-10	1-3/8 x 3	2.73
4-19-50	475	40-20-10-10	1-3/8 x 3	3.00
4-20	500	10-10-10-10	1-3/8 x 2	2.06
4-20-50	500	40-40-8-8	1-3/8 x 4	3.35
4-21	150/10	30-20-20/200	1-3/8 x 2	1.85
4-22	150/10	40-40-20/200	1-3/8 x 2	1.91
4-23	150/10	60-40-20/200	1-3/8 x 2	2.06
4-23-50	150/10	80-80-10/200	1-3/8 x 2-1/2	2.29
4-23-75	150/15	50-20/150-30	1-3/8 x 2	1.88
4-24	150/25	10-20-60/20	1-3/8 x 2	1.82
4-25	150/25	20-20-20/20	1-3/8 x 2	1.71
4-25-70	150/25	20-20/160-40	1-3/8 x 2	1.88
4-26	150/25	30-30-30/40	1-3/8 x 2	1.82
4-27	150/25	40-20-20/20	1-3/8 x 2	1.73
4-28	150/25	40-40-30/20	1-3/8 x 2	1.82
4-29	150/25	40-40-40/20	1-3/8 x 2	1.85
4-30	150/25	40-40/40-40	1-3/8 x 2	1.79
4-31	150/25	40-40-40/100	1-3/8 x 2	1.97
4-32	150/25	40-40-40/160	1-3/8 x 2	2.09
4-33	150/25	40-40/100-100	1-3/8 x 2	1.97
4-33-20	150/25	40-40/200-100	1-3/8 x 2	2.09
4-33-50	150/25	50-20-20/200	1-3/8 x 2	2.06
4-34	150/25	50-30-30/100	1-3/8 x 2	2.03
4-35	150/25	50-50-50/20	1-3/8 x 2	2.09
4-35-25	150/25	60-40-20/20	1-3/8 x 2	1.94
4-35-50	150/25	60-60-10/60	1-3/8 x 2-1/2	2.06
4-36	150/25	75-75-75/30	1-3/8 x 3	2.53
4-37	150/25	80-40-40/20	1-3/8 x 2	2.09
4-37-10	150/25	80-40-40/40	1-3/8 x 2-1/2	2.12
4-38	150/25	80-40-40/100	1-3/8 x 2-1/2	2.21
4-38-30	150/25	100-90-60/200	1-3/8 x 3	2.91
4-38-75	150/25	125-125-40/100	1-3/8 x 3	2.85
4-39	200/25	40-20-10/20	1-3/8 x 2	1.88
4-40	250/25	40-20-10/20	1-3/8 x 2	2.00
4-41	250/50	100-40-10/100	1-3/8 x 3-1/2	3.03
4-42	250/150	80-60-40/20	1-3/8 x 3-1/2	3.00
4-43	300/25	10-10-10/20	1-3/8 x 2	1.73
4-44	300/25	40-20-20/25	1-3/8 x 2	2.35
4-44-20	300/25	40-30-20/50	1-3/8 x 2-1/2	2.44
4-45	300/25	40-40-20/20	1-3/8 x 3	2.59
4-46	300/25	60-40-20/50	1-3/8 x 3	2.73
4-46-20	300/50	60-30-10/60	1-3/8 x 2-1/2	2.47
4-46-50	300/150	10/200-140-30	1-3/8 x 4	3.00
4-46-60	300/150	10/200-200-30	1-3/8 x 4	3.15
4-47	300/150	40-40-40/20	1-3/8 x 3	2.88
4-48	350/25	10-10-10/20	1-3/8 x 2	1.73
4-49	350/25	20-10-5/20	1-3/8 x 2	1.82
4-49-25	350/25	30-10-5/200	1-3/8 x 2	2.23
4-50	350/25	30-20-20/20	1-3/8 x 2-1/2	2.41
4-50-60	350/25	40-10/100-25	1-3/8 x 2	2.21
4-50-90	350/25	40-20-5/10	1-3/8 x 2-1/2	2.23
4-51	350/25	40-20-20/25	1-3/8 x 2-1/2	2.50
4-52	350/25	40-40-20/20	1-3/8 x 3	2.76
4-52-05	350/25	40-40-30/10	1-3/8 x 3	2.91
4-53	350/25	40-40-40/40	1-3/8 x 3	3.06
4-53-40	350/25	60-5/100-40	1-3/8 x 2-1/2	2.23
4-54	350/50	15-15-15/50	1-3/8 x 2	2.23
4-55	350/50	40-30-10/50	1-3/8 x 3	2.59
4-56	350/50	40-40-40/150	1-3/8 x 3-1/2	3.35
4-56-30	350/50	60-25-25/100	1-3/8 x 3-1/2	3.03
4-56-60	350/50	100-10-10/20	1-3/8 x 3	3.03
4-56-75	350/50	100-40-30/50	1-3/8 x 4	3.85
4-56-90	350/75	90-30-5/100	1-3/8 x 3-1/2	3.62
4-56-92	350/200	20-10-5/60	1-3/8 x 2-1/2	2.15
4-56-94	350/300	10-10/10-10	1-3/8 x 2	1.82
4-56-96	400/25	10-10/25-25	1-3/8 x 2	1.65
4-57	400/25	20-20-20/20	1-3/8 x 2-1/2	2.26
4-57-50	400/25	80-40-30/40	1-3/8 x 4	3.50
4-57-75	400/50	40-40-40/150	1-3/8 x 4	3.35
4-58	400/250	40-10/80-10	1-3/8 x 3-1/2	2.76
4-58-50	400/300	80/40-20-10	1-3/8 x 4	3.26
4-59	450/25	10-10-10/20	1-3/8 x 2	1.85
4-60	450/25	10-10-10/25	1-3/8 x 2	1.85
4-61	450/25	10-10-10/100	1-3/8 x 2	1.97
4-62	450/25	10-10-10/150	1-3/8 x 2-1/2	2.18
4-63	450/25	10-10/20-20	1-3/8 x 2	1.73
4-65	450/25	20-10-10/100	1-3/8 x 2	2.18
4-66	450/25	20-15/20-20	1-3/8 x 2	2.09
4-67	450/25	20-20-20/20	1-3/8 x 2-1/2	2.44
4-68	450/25	30-15-15/40	1-3/8 x 2-1/2	2.44
4-69	450/25	30-20-20/20	1-3/8 x 3	2.59
4-70	450/25	30-30-10/20	1-3/8 x 3	2.56
4-70-10	450/25	30-30-10/125	1-3/8 x 3	2.65
4-71	450/25	30-30-20/20	1-3/8 x 3	2.73
4-72	450/25	40-10-10/250	1-3/8 x 3	2.73
4-73	450/25	40-10-10/300	1-3/8 x 3	2.85
4-74	450/25	40-15-10/25	1-3/8 x 3	2.38
4-75	450/25	40-20-10/20	1-3/8 x 3	2.50
4-76	450/25	40-20-20/20	1-3/8 x 3	2.71
4-77	450/25	40-20-20/40	1-3/8 x 3	2.73
4-78	450/25	40-30-10/20	1-3/8 x 3	2.65
4-78-10	450/25	40-40-10/20	1-3/8 x 3-1/2	2.76
4-79	450/25	40-40-20/20	1-3/8 x 3-1/2	2.94
4-79-10	450/25	40-40-40/40	1-3/8 x 4	3.23
4-79-20	450/25	60-40-40/10	1-3/8 x 4	3.53
4-79-30	450/25	60-50-5/20	1-3/8 x 4	3.15
4-80	450/50	20-20-20/100	1-3/8 x 3	2.68

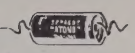
AEROVOX
TYPE AFH (85° C)
Twist-Prong Base
Electrolytic Capacitors

AFH QUADS (cont.)

Catalog No.	Capacity Mfd.	Voltage	Dia. x Hght.	Net Each
4-81	30-30-15/30	450/50	1-3/8 x 3	2.68
4-82	30-30-15/100	450/50	1-3/8 x 3-1/2	2.88
4-83	40-20-10/100	450/50	1-3/8 x 3-1/2	2.71
4-84	40-40-10/20	450/50	1-3/8 x 3	2.76
4-85	40-40/10-30	450/50	1-3/8 x 3	2.65
4-85-25	40-40-10/50	450/50	1-3/8 x 4	2.82
4-86	60-10-10/20	450/50	1-3/8 x 3	2.68
4-86-25	60-40-10/25	450/50	1-3/8 x 4	3.09
4-87	40-40-10/100	450/100	1-3/8 x 3-1/2	3.15
4-88	60-10-10/20	450/150	1-3/8 x 3	2.71
4-88-20	35-35-10/10	450/200	1-3/8 x 3-1/2	2.71
4-88-40	40-40-30/10	450/200	1-3/8 x 4	3.15
4-88-50	40-40/100-60	450/200	1-3/8 x 4	3.56
4-88-60	40-20-10/100	450/250	1-3/8 x 4	3.44
4-88-80	10/100-20-20	450/300	1-3/8 x 3	3.09
4-89	20-20/30-30	450/300	1-3/8 x 3	2.65
4-90	20-20/20-10	450/350	1-3/8 x 3	2.44
4-91	20-20/30-30	450/350	1-3/8 x 3	2.97
4-91-50	40-10-10/40	450/350	1-3/8 x 3	2.79
4-92	40-10/35-10	450/350	1-3/8 x 3	2.71
4-92-50	40-20-20/20	450/350	1-3/8 x 3	2.94
4-92-75	40-20/80-10	450/350	1-3/8 x 4	3.41
4-93	40-40/30-30	450/350	1-3/8 x 4	3.47
4-93-75	30-30-10/20	475/25	1-3/8 x 3	2.68
4-94	40-10-20/10	475/25	1-3/8 x 3	2.85
4-94-50	20/80-20-10	475/300	1-3/8 x 3-1/2	2.94
4-94-60	50-30/20-20	475/300	1-3/8 x 4	3.35
4-94-75	20/60-40-10	475/350	1-3/8 x 3-1/2	3.06
4-95	20-20-10/10	500/300	1-3/8 x 2-1/2	2.53
4-96	50-30-10/20	500/300	1-3/8 x 4	3.29
4-96-50	40-40/50/80	250/150/50	1-3/8 x 2-1/2	2.41
4-97	100/40/80-20	300/50/25	1-3/8 x 2-1/2	2.68
4-97-40	20/150-150/100	300/150/50	1-3/8 x 3-1/2	3.12
4-97-75	100-40/125/50	300/150/50	1-3/8 x 4	3.59
4-98	20/150-80/20	350/150/25	1-3/8 x 3	2.68
4-98-50	60/60-30/160	350/150/25	1-3/8 x 3	2.68
4-99	15/80-40/200	350/200/25	1-3/8 x 3	2.71
4-99-25	20/60/160-40	350/200/25	1-3/8 x 2-1/2	2.65
4-99-50	80-20/20/200	350/200/50	1-3/8 x 3-1/2	2.35
4-99-75	20/100-100/10	350/200/100	1-3/8 x 4	3.18
4-99-90	60-40/60/20	350/250/150	1-3/8 x 4	2.94
4-100	40/40-20/20	350/300/25	1-3/8 x 3	3.18
4-100-25	50-25/100/20	400/50/25	1-3/8 x 3	2.65
4-100-40	80-40/100/20	400/50/25	1-3/8 x 4	2.73
4-100-45	20-10/10/25	400/100/25	1-3/8 x 2	3.29
4-100-50	10-10/40/10	400/200/50	1-3/8 x 2	1.82
4-100-75	40/120-10/150	400/250/50	1-3/8 x 4	1.88
4-101	5-5/50/80	400/300/250	1-3/8 x 3	3.47
4-102	10/50-30/30	400/350/25	1-3/8 x 3	2.73
4-102-25	80/40-10/10	400/350/25	1-3/8 x 4	2.59
4-102-40	20/40/100-10	400/350/50	1-3/8 x 3	3.12
4-102-50	20/50-40/80	400/350/50	1-3/8 x 3	2.47
4-102-75	30/60-20/100	400/350/50	1-3/8 x 4	2.94
4-103	40-60/40/10	400/350/50	1-3/8 x 3-1/2	2.94
4-104	40/10/80-10	400/350/250	1-3/8 x 3	3.38
4-105	30/125-125/30	450/25/450	1-3/8 x 3	2.73
4-105-30	20-20/60/100	450/150/25	1-3/8 x 2-1/2	2.85
4-105-60	40-40/125/125	450/150/25	1-3/8 x 4	2.50
4-106	40/40/10-30	450/150/50	1-3/8 x 3	3.35
4-107	10-10/60/100	450/200/50	1-3/8 x 3	2.21
4-107-50	10/80-40/100	450/200/50	1-3/8 x 3	2.26
4-108	20/80-20/50	450/200/50	1-3/8 x 3	2.50
4-108-10	35-25/20/100	450/200/50	1-3/8 x 3	2.44
4-108-30	40/40-40/20	450/250/25	1-3/8 x 3	2.73
4-108-40	60/80-40/20	450/250/150	1-3/8 x 4	2.68
4-108-50	10-10/10/50	450/300/25	1-3/8 x 2	3.32
4-108-70	40/40-40/20	450/300/150	1-3/8 x 3	1.85
4-108-90	10/100-20/20	450/300/200	1-3/8 x 3	2.88
4-109	10/60-40/25	450/350/25	1-3/8 x 3-1/2	2.97
4-110	10/100-10/20	450/350/25	1-3/8 x 3-1/2	2.71
4-111	20/15-15/20	450/350/25	1-3/8 x 2	3.09
4-111-50	20/80-50/100	450/350/50	1-3/8 x 4	2.23
4-112	30/40-40/10	450/350/200	1-3/8 x 3-1/2	3.53
4-112-50	80/10/40-30	450/400/300	1-3/8 x 4	3.03
4-112-75	10/100-10/100	475/300/25	1-3/8 x 3-1/2	3.41
4-113	15-15/80/40	475/300/50	1-3/8 x 3	2.88
4-113-20	10/30-5/80	475/350/50	1-3/8 x 2-1/2	2.82
4-113-40	40-10/4/40	475/350/300	1-3/8 x 3	2.18
4-113-60	10/50-30/30	475/450/25	1-3/8 x 3	2.91
4-113-80	20-10/20/100	475/450/25	1-3/8 x 2-1/2	2.79
4-114	10-5/80/40	475/450/50	1-3/8 x 3-1/2	2.47
4-114-50	10/40-10/100	475/450/50	1-3/8 x 2-1/2	2.91
4-114-60	10/100-30/100	500/300/25	1-3/8 x 3-1/2	2.53
4-114-75	30/10/150-30	500/450/50	1-3/8 x 3	3.06
4-115	120/20/20/100	300/250/25/50	1-3/8 x 4	2.47
4-116	200/20/100/20	300/250/50/25	1-3/8 x 4	2.97
4-117	20/40/10/250	350/300/150/50	1-3/8 x 3	3.41
4-117-25	20/150/10/250	350/300/250/50	1-3/8 x 4	2.71
4-117-40	20/10/10/20	400/350/200/25	1-3/8 x 2	3.59
4-117-50	10/10/60/100	450/300/200/50	1-3/8 x 3	1.88
4-117-60	10/40/40/100	450/300/250/50	1-3/8 x 3-1/2	2.23
4-117-75	30/40/50/200	450/300/250/150	1-3/8 x 4	2.59
4-117-90	10/40/100/100	450/350/250/50	1-3/8 x 3	3.53
4-118	80/10/30/40	450/400/300/150	1-3/8 x 4	3.26
4-118-50	5/60/50/20	450/400/350/25	1-3/8 x 3-1/2	3.09
4-118-90	40/40/50/80	475/250/150/50	1-3/8 x 3-1/2	2.97
4-119	20/40/100/80	475/300/50/25	1-3/8 x 3	2.94
4-120	10/40/80/100	475/350/200/100	1-3/8 x 3-1/2	2.65
4-120-10	20/40/80/100	475/350/200/100	1-3/8 x 4	2.82
4-120-20	10/40/80/100	475/350/300/100	1-3/8 x 4	3.21
4-120-50	10/40/100/10	475/400/50/25	1-3/8 x 2-1/2	3.26
4-120-75	10/40/4/100	475/400/350/50	1-3/8 x 2-1/2	2.35
4-121	10/10/80/50	475/450/200/50	1-3/8 x 2-1/2	2.38
4-121-50	25/20/20/100	475/450/300/50	1-3/8 x 3	2.26
4-122	25/20/40/100	475/450/300/50	1-3/8 x 3-1/2	2.71
4-123	10/60/30/125	475/450/400/50	1-3/8 x 4	2.91
4-124 (AFHS)	40-70-40/25	150/25	1-3/8 x 2-1/2	3.21
4-125 (AFHS)	100-10/200-30	300/150	1-3/8 x 4	2.03
				3.47



SPRAGUE ATOMS



The smallest dependable dry electrolytic—the only small size capacitor designed for 85° C. (185° F.) operation in Voltages to 450 WVDC. Small enough to fit anywhere, work anywhere. Guaranteed to have low leakage and long shelf life. Will withstand high temperatures, high ripple currents, high surge voltages.

SINGLE UNITS

MF	WVDC	Diam. x Length *	Cat. No.	Net Ea.
50	6	3/8 x 1 1/4	TVA-1100	$ .56
100	6	1/2 x 1 1/8	TVA-1101	.71
250	6	5/8 x 1 7/8	TVA-1102	.79
500	6	5/8 x 2 3/4	TVA-1103	.91
1000	6	1 1/16 x 2 3/4	TVA-1104	1.12
1500	6	1 3/16 x 2 11/16	TVA-1105	1.23
2000	6	1 3/16 x 2 13/16	TVA-1106	1.35
100	12	5/8 x 1 3/16	TVA-1130	.71
250	12	5/8 x 1 11/16	TVA-1131	.85
500	12	3/4 x 1 11/16	TVA-1132	1.00
1000	12	1 3/16 x 2 3/4	TVA-1133	1.32
100	15	5/8 x 1 3/16	TVA-1160	.73
250	15	5/8 x 1 11/16	TVA-1161	.91
500	15	1 1/16 x 2 3/4	TVA-1162	1.03
1000	15	7/8 x 2 3/4	TVA-1163	1.35
2	25	3/8 x 1 1/4	TVA-1201	.53
5	25	3/8 x 1 1/4	TVA-1203	.59
10	25	3/8 x 1 1/4	TVA-1204	.59
25	25	3/8 x 1 1/4	TVA-1205	.59
50	25	5/8 x 1 3/16	TVA-1206	.65
100	25	5/8 x 1 11/16	TVA-1207	.79
250	25	3/4 x 1 11/16	TVA-1208	1.00
500	25	7/8 x 2 3/4	TVA-1209	1.35
1	50	3/8 x 1 1/4	TVA-1300	.53
2	50	3/8 x 1 1/4	TVA-1301	.53
5	50	3/8 x 1 1/4	TVA-1303	.59
10	50	3/8 x 1 1/4	TVA-1304	.59
25	50	7/8 1 7/8	TVA-1306	.62
50	50	5/8 x 1 11/16	TVA-1308	.71
100	50	5/8 x 1 11/16	TVA-1310	.82
150	50	3/4 x 1 11/16	TVA-1311	.91
250	50	1 3/16 x 1 11/16	TVA-1312	1.03
4	150	3/8 x 1 1/4	TVA-1402	.59
8	150	3/8 x 1 3/4	TVA-1405	.62
10	150	3/8 x 1 3/4	TVA-1406	.62
12	150	3/8 x 1 3/4	TVA-1407	.65
16	150	5/8 x 1 11/16	TVA-1409	.68
20	150	5/8 x 1 11/16	TVA-1410	.71
30	150	5/8 x 1 11/16	TVA-1412	.76
40	150	3/4 x 1 11/16	TVA-1413	.79
50	150	1 3/16 x 1 11/16	TVA-1414	.82
80	150	7/8 x 1 13/16	TVA-1418	.94
100	150	7/8 x 2 3/4	TVA-1420	1.03
150	150	1 x 2 3/4	TVA-1422	1.12
4	250	3/8 x 1 5/8	TVA-1501	.59
8	250	1/2 x 1 5/8	TVA-1503	.68
10	250	5/8 x 1 11/16	TVA-1504	.71
12	250	5/8 x 1 11/16	TVA-1505	.73
16	250	5/8 x 1 11/16	TVA-1507	.76
20	250	1 1/16 x 1 11/16	TVA-1508	.79
30	250	1 1/16 x 2 3/4	TVA-1510	.85
40	250	3/4 x 2 3/4	TVA-1511	.91
4	350	1/2 x 1 5/8	TVA-1601	.62
8	350	5/8 x 1 11/16	TVA-1603	.71
10	350	1 1/16 x 1 11/16	TVA-1604	.73
12	350	1 1/16 x 1 11/16	TVA-1605	.76
16	350	3/4 x 1 11/16	TVA-1607	.82
20	350	1 3/16 x 1 11/16	TVA-1608	.85
30	350	1 3/16 x 2 3/4	TVA-1610	.97
40	350	7/8 x 2 7/16	TVA-1611	1.03
60	350	1 x 2 7/16	TVA-1613	1.15
2	450	3/4 x 1 5/8	TVA-1701	.65
4	450	5/8 x 1 11/16	TVA-1702	.68
8	450	1 1/16 x 1 11/16	TVA-1704	.73
10	450	1 1/16 x 1 11/16	TVA-1705	.76
12	450	3/4 x 1 11/16	TVA-1706	.79
16	450	3/4 x 2 3/16	TVA-1708	.82

SINGLE UNITS continued

MF	WVDC	Diam. x Length *	Cat. No.	Net Ea.
20	450	3/4 x 2 3/16	TVA-1709	.91
30	450	7/8 x 2 3/16	TVA-1711	1.00
40	450	7/8 x 2 11/16	TVA-1712	1.06
50	450	7/8 x 3 3/16	TVA-1713	1.24
80	450	1 x 3 1/16	TVA-1716	1.64
10	475	3/4 x 1 15/16	TVA-1802	.79
20	475	7/8 x 2 7/16	TVA-1804	.94
8	500	7/8 x 1 11/16	TVA-1902	.76
16	500	1 3/16 x 2 3/16	TVA-1905	.88
20	500	1 x 2 3/16	TVA-1906	.94

DUAL UNITS
(COMMON NEGATIVE—3 LEADS)

10-10	25-25	7/8 x 1 7/16	TVA-2210	.82
10-10	50-50	7/8 x 1 7/16	TVA-2315	.82
8-8	150-150	7/8 x 1 7/16	TVA-2415	.88
16-16	150-150	7/8 x 1 7/16	TVA-2420	1.06
20-12	150-150	7/8 x 1 7/16	TVA-2425	1.00
20-20	150-150	7/8 x 1 7/16	TVA-2428	.94
30-20	150-150	7/8 x 1 11/16	TVA-2421	.97
30-30	150-150	7/8 x 1 11/16	TVA-2434	1.06
40-20	150-150	7/8 x 1 11/16	TVA-2438	1.03
40-30	150-150	7/8 x 1 13/16	TVA-2442	1.06
40-40	150-150	7/8 x 1 13/16	TVA-2445	1.09
50-30	150-150	7/8 x 1 13/16	TVA-2450	1.15
50-50	150-150	7/8 x 2 7/16	TVA-2453	1.23
80-30	150-150	7/8 x 2 7/16	TVA-2460	1.29
20-20	250-250	7/8 x 1 13/16	TVA-2515	1.09
40-10	250-250	7/8 x 2 3/16	TVA-2520	1.21
80-10	250-250	1 3/16 x 3 3/16	TVA-2525	1.49
8-8	450-450	7/8 x 1 11/16	TVA-2720	1.00
10-10	450-450	7/8 x 1 13/16	TVA-2722	1.09
16-8	450-450	7/8 x 2 3/16	TVA-2725	1.18
20-20	450-450	7/8 x 2 13/16	TVA-2730	1.46
30-30	450-450	1 x 3 3/16	TVA-2735	1.76
40-40	450-450	1 x 3 13/16	TVA-2740	2.00

DUAL UNITS
(SEPARATE SECTIONS—4 LEADS)

20-20	150-150	1 x 2 3/16	TU-220	1.20
40-20	150-150	1 1/16 x 2 5/16	TU-420	1.29
16-16	250-250	1 x 2 7/16	TU-216	1.29
8-8	450-450	1 1/16 x 3 3/16	TU-88	1.26
16-16	450-450	1 3/16 x 3 1/16	TU-1616	1.65

TRIPLE UNITS

20-20-20	150-150-25	7/8 x 1 7/16	TVA-3415	1.20
30-30-100	150-150-12	7/8 x 1 13/16	TVA-3419	1.35
40-30-20	150-150-25	7/8 x 1 13/16	TVA-3423	1.29
40-40-100	150-150-25	7/8 x 2 7/16	TVA-3427	1.44
50-30-20	150-150-25	7/8 x 2 3/16	TVA-3430	1.38
50-30-200	150-150-25	1 x 2 3/16	TVA-3433	1.61
50-50-20	150-150-25	1 3/16 x 2 3/16	TVA-3436	1.46
20-20-20	150-150-150	7/8 x 1 11/16	TVA-3440	1.29
30-30-30	150-150-150	7/8 x 2 3/16	TVA-3434	1.38
40-30-20	150-150-150	7/8 x 2 3/16	TVA-3448	1.38
40-40-40	150-150-150	1 x 2 7/16	TVA-3451	1.44
80-40-20	150-150-150	1 x 2 13/16	TVA-3455	1.61
12-12-20	450-450-25	1 x 2 7/8	TVA-3716	1.35

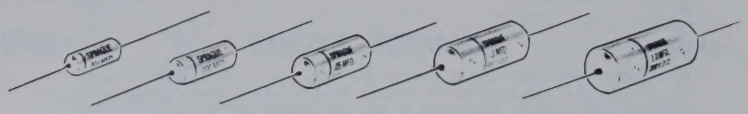
*Add 1/16" to diameter and 1/8" to length to allow for outer insulating tube.

AEROXOV AFH HARDWARE

METAL WASHERS Cat. No.	Size	BAKELITE WASHERS Cat. No.	Size
MW-1	3/4" d.	BW-1	3/4" d.
MW-2	1" d.	BW-2	1" d.
MW-3	1-3/8" d.	BW-3	1-3/8 d.
MW-4	1" in 1-3/8" hole mounting	BW-4	1" in 1-3/8" hole mounting

INSULATING TUBES Cat. No.	Size
TU-1	1 x 2
TU-2	1 x 2-1/2
TU-3	1 x 3
TU-4	1 x 3-1/2
TU-5	1 x 4
TU-6	1-3/8 x 2
TU-7	1-3/8 x 2-1/2
TU-8	1-3/8 x 3
TU-9	1-3/8 x 3-1/2
TU-10	1-3/8 x 4

All Items Net Each $.04



SPRAGUE TELECAP
BLACK BEAUTY MOLDED TUBULARS

Premium Quality at No Extra Cost. Made Under Exclusive "Dry" Process, just like Costly Metal-Encased Oil Units. Molded in Tough Bakelite Phenolic. Non-Flammable Case. Only Telecaps are Oil-impregnated in Ratings from 600 to 12,500 WVDC. Extremely High Insulation Resistance. Withstand Severe Heat, Moisture, Shock. Designed for 85° C. (185° F.) Operation.

200 WVDC

MF	D. x L.	Cat. No.	Net Ea.
.02	⅜ x 1¼	2TM-S2	$ .15
.022	⅜ x 1¼	2TM-S22	.15
.047	⅜ x 1¼	2TM-S47	.15
.05	⅜ x 1¼	2TM-S5	.15
.1	7/16 x 1¼	2TM-P1	.21
.15	½ x 1½	2TM-P15	.21
.22	⅝ x 1⅞	2TM-P22	.24
.25	⅝ x 1⅞	2TM-P25	.24
.47	⅝ x 1⅞	2TM-P47	.35
.5	⅝ x 1⅞	2TM-P5	.35
1.0	¾ x 2¼	2TM-M1	.53

400 WVDC

.01	5/16 x 1	4TM-S1	.15
.015	⅜ x 1¼	4TM-S15	.15
.02	⅜ x 1¼	4TM-S2	.15
.022	⅜ x 1¼	4TM-S22	.15
.025	⅜ x 1¼	4TM-S25	.18
.03	⅜ x 1¼	4TM-S3	.18
.04	7/16 x 1¼	4TM-S4	.18
.047	7/16 x 1¼	4TM-S47	.18
.05	7/16 x 1¼	4TM-S5	.18
.068	½ x 1½	4TM-S68	.21
.1	½ x 1½	4TM-P1	.21
.15	⅝ x 1⅞	4TM-P15	.21
.2	⅝ x 1⅞	4TM-P2	.24
.22	⅝ x 1⅞	4TM-P22	.24
.25	⅝ x 1⅞	4TM-P25	.24
.47	¾ x 2¼	4TM-P47	.35
.5	¾ x 2¼	4TM-P5	.35

600 WVDC

.0001	5/16 x 1	6TM-T1	.15
.00025	5/16 x 1	6TM-T25	.15
.0004	5/16 x 1	6TM-T4	.15
.0005	5/16 x 1	6TM-T5	.15
.001	5/16 x 1	6TM-D1	.15
.0015	5/16 x 1	6TM-D15	.15
.002	5/16 x 1	6TM-D2	.15
.0022	5/16 x 1	6TM-D22	$ .15
.0025	5/16 x 1	6TM-D25	.15
.003	5/16 x 1	6TM-D3	.15
.0033	5/16 x 1	6TM-D33	.15
.004	5/16 x 1	6TM-D4	.15
.0047	5/16 x 1	6TM-D47	.15
.005	⅜ x 1¼	6TM-D5	.15
.006	⅜ x 1¼	6TM-D6	.15
.0068	⅜ x 1¼	6TM-D68	.18
.008	⅜ x 1¼	6TM-D8	.18
.01	⅜ x 1¼	6TM-S1	.18
.015	⅜ x 1¼	6TM-S15	.18
.02	7/16 x 1¼	6TM-S2	.18
.022	7/16 x 1¼	6TM-S22	.18
.03	7/16 x 1¼	6TM-S3	.21
.033	½ x 1½	6TM-S33	.21
.035	½ x 1½	6TM-S35	.21
.04	½ x 1½	6TM-S4	.21
.047	½ x 1½	6TM-S47	.24
.05	½ x 1½	6TM-S5	.24
.06	⅝ x 1⅞	6TM-S6	.24
.068	⅝ x 1⅞	6TM-S68	.26
.1	⅝ x 1⅞	6TM-P1	.26
.15	¾ x 2¼	6TM-P15	.29
.2	¾ x 2¼	6TM-P2	.32
.22	¾ x 2¼	6TM-P22	.32
.25	¾ x 2¼	6TM-P25	.32
.5	1 x 2⅜	6TM-P5	.47
1.0	1 x 2⅝	*TC-10	.73

1000 WVDC

.0005	5/16 x 1	10TM-T5	.29
.001	5/16 x 1	10TM-D1	.29
.0015	5/16 x 1	10TM-D15	.29
.002	5/16 x 1	10TM-D2	.29
.0022	5/16 x 1	10TM-D22	.29
.003	⅜ x 1¼	10TM-D3	.29
.004	⅜ x 1¼	10TM-D4	.29
.0047	⅜ x 1¼	10TM-D47	.29
.005	⅜ x 1¼	10TM-D5	.29
.0068	⅜ x 1¼	10TM-D68	.29
.01	⅜ x 1¼	10TM-S1	.29
.015	7/16 x 1¼	10TM-S15	.29
.02	½ x 1½	10TM-S2	.29
.022	½ x 1½	10TM-S22	$ .29
.03	½ x 1½	10TM-S3	.29
.035	½ x 1½	10TM-S35	.29
.047	⅝ x 1⅞	10TM-S47	.35
.05	⅝ x 1⅞	10TM-S5	.35
.068	⅝ x 1⅞	10TM-S68	.38
.1	¾ x 2¼	10TM-P1	.44

★ 1600 WVDC

.0005	⅜ x 1¼	MB-T5	.38
.001	⅜ x 1¼	MB-D1	.38
.0015	⅜ x 1¼	MB-D15	.38
.002	⅜ x 1¼	MB-D2	.38
.0022	⅜ x 1¼	MB-D22	.38
.003	7/16 x 1¼	MB-D3	.38
.0033	7/16 x 1¼	MB-D33	.38
.004	7/16 x 1¼	MB-D4	.38
.0047	7/16 x 1¼	MB-D47	.38
.005	7/16 x 1¼	MB-D5	.38
.006	½ x 1½	MB-D6	.38
.0068	½ x 1½	MB-D68	.38
.007	½ x 1½	MB-D7	.38
.0075	7/16 x 1¼	MB-D75	.38
.008	½ x 1½	MB-D8	.38
.01	½ x 1½	MB-S1	.44
.015	⅝ x 1⅞	MB-S15	.44
.02	⅝ x 1⅞	MB-S2	.44
.022	⅝ x 1⅞	MB-S22	.44
.03	⅝ x 1⅞	MB-S3	.44
.04	¾ x 2¼	MB-S4	.44
.05	¾ x 2⅛	*TR-15	.44
2 x .015	¾ x 2	*TR-215	.47

6000 WVDC

.0005	½ x 1½	TVM-356	.79
.001	½ x 1½	TVM-216	.79
.005	⅝ x 1⅞	TVM-256	.79

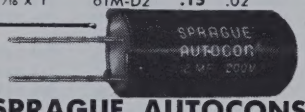
10,000 WVDC

.0005	⅝ x 1⅞	TVM-351	.88

12,500 WVDC

.00025	⅝ x 1⅞	12TVM-325	1.00

★ DESIGNED FOR BUFFER APPLICATIONS



SPRAGUE AUTOCONS
Molded Tubular Capacitors For Printed Wiring Boards

Generous 1" lead lengths make Autocons universal replacements for all single-ended original equipment types. Impregnated with HCX, an exclusive new solid dielectric material. High Insulation Resistance, low Power Factor. Extremely flat Temperature-Capacitance curve. Premolded thermosetting plastic shell with plastic resin endseal for protection against humidity. Index Key on shell identifies outside foil lead. "Standoff" feet prevent dust and moisture traps. Also prevent printed chassis wiring shorts.

200 VOLTS D-C

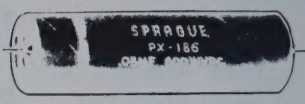
MF	Diam.	Length	Cat. No.	Net Ea.
.001	⅜	1	2SE-D10	$ .18
.0015	⅜	1	2SE-D15	.18
.0022	⅜	1	2SE-D22	.18
.0033	⅜	1	2SE-D33	.18
.0047	⅜	1	2SE-D47	.18
.0068	⅜	1	2SE-D68	.18
.01	⅜	1	2SE-S10	.18
.015	⅜	1	2SE-S15	.18
.022	⅜	1⅜	2SE-S22	.21
.033	⅜	1⅜	2SE-S33	.21
.047	7/16	1⅜	2SE-S47	.21
.068	7/16	1⅜	2SE-S68	.21
.1	½	1½	2SE-P10	.24
.15	⅝	1¼	2SE-P15	.27
.22	⅝	1⅞	2SE-P22	.30
.33	⅝	1⅞	2SE-P33	.32
.47	¾	1⅞	2SE-P47	.38

400 VOLTS D-C

MF	Diam.	Length	Cat. No.	Net Ea.
.001	⅜	1	4SE-D10	.18
.0015	⅜	1	4SE-D15	.18
.0022	⅜	1	4SE-D22	.18
.0033	⅜	1	4SE-D33	.18
.0047	⅜	1	4SE-D47	.18
.0068	⅜	1	4SE-D68	.18
.01	⅜	1	4SE-S10	.18
.015	⅜	1⅜	4SE-S15	.18
.022	7/16	1⅜	4SE-S22	.21
.033	7/16	1⅜	4SE-S33	.21
.047	½	1¼	4SE-S47	.21
.068	½	1½	4SE-S68	.24
.1	⅝	1¼	4SE-P10	.27
.15	⅝	1⅞	4SE-P15	.30
.22	⅝	1⅞	4SE-P22	.32
.33	¾	1⅞	4SE-P33	.38

600 VOLTS D-C

.001	⅜	1	6SE-D10	.18
.0015	⅜	1	6SE-D15	.18
.0022	⅜	1	6SE-D22	.18
.0033	⅜	1	6SE-D33	.18
.0047	⅜	1	6SE-D47	.18
.0068	⅜	1⅜	6SE-D68	.18
.01	⅜	1⅜	6SE-S10	.21
.015	7/16	1⅜	6SE-S15	.21
.022	7/16	1⅜	6SE-S22	.24
.033	½	1¼	6SE-S33	.24
.047	½	1½	6SE-S47	.27
.068	⅝	1⅞	6SE-S68	.30
.1	⅝	1⅞	6SE-P10	.32
.15	¾	1⅞	6SE-P15	.35



SPRAGUE PX
Metal-Encased Tubulars

Rubber-phenolic Compression Disc. Seals Assure Positive Hermetic Closure. Oil-Filled and Oil-Impregnated for Greater Dielectric Strength at Higher Temperatures. A Product of New Techniques, Materials, and Processes for Maximum Dependability Under Most Severe Operating Conditions.

Furnished with Insulating Kraftboard Outer Sleeve.

Brass cadmium plated lugs are firmly locked into 1/16" thick bakelite. Spacing between lug centers is ⅜".

600 WVDC

MF	Dia. x Length	Cat. No.	Net Ea.
.0001	½ x 1¼	PX-316	$ .56
.00025	½ x 1¼	PX-3256	.56
.0005	½ x 1¼	PX-356	.56
.001	½ x 1¼	PX-216	.56
.002	½ x 1¼	PX-226	.56
.003	½ x 1¼	PX-236	.56
.004	½ x 1¼	PX-246	.56
.005	½ x 1¼	PX-256	.56
.006	½ x 1¼	PX-266	.56
.007	½ x 1¼	PX-276	.56
.008	½ x 1¼	PX-286	.56
.009	½ x 1¼	PX-296	.56
.01	½ x 1¼	PX-116	.56
.02	½ x 1¾	PX-126	.62
.03	⅝ x 1⅝	PX-136	.65
.04	⅝ x 1⅝	PX-146	.65
.05	⅝ x 1⅝	PX-156	.65
.06	1 1/16 x 1⅝	PX-166	.71
.08	1 1/16 x 1⅞	PX-186	.71
.1	1 1/16 x 1⅞	PX-16	.73
.25	1 3/16 x 2 13/16	PX-26	1.00
.5	1 1/16 x 2 13/16	PX-56	1.28
1.0	1 1/16 x 3 11/16	PX-106	1.76

1000 WVDC

.0001	1 1/16 x 1¼	PX-311	.65
.00025	1 1/16 x 1¼	PX-3251	.65
.0005	1 1/16 x 1¼	PX-351	65
.001	1 1/16 x 1¼	PX-211	.65
.002	1 1/16 x 1¼	PX-221	.65
.003	1 1/16 x 1¼	PX-231	.65
.004	1 1/16 x 1¼	PX-241	.65
.005	1 1/16 x 1¼	PX-251	.65
.006	1 1/16 x 1¼	PX-261	.65
.007	1 1/16 x 1¼	PX-271	.65
.008	1 1/16 x 1¼	PX-281	.65
.009	1 1/16 x 1¼	PX-291	.65
.01	1 1/16 x 1¼	PX-111	.65
.02	⅝ x 1⅝	PX-121	.71
.03	1 1/16 x 1¾	PX-131	.71
.04	1 1/16 x 1¾	PX-141	.71
.05	1 1/16 x 1¾	PX-151	.76
.06	1 1/16 x 2	PX-161	.79
.08	1 1/16 x 2	PX-181	.82
.1	1 1/16 x 2	PX-11	.89
.25	1 1/16 x 2 13/16	PX-21	1.18
.5	1 1/16 x 3 11/16	PX-51	1.68

1500 WVDC

.002	⅝ x 1¼	PX-2215	.71
.005	⅝ x 1¼	PX-2515	.71
.01	1 1/16 x 1⅝	PX-1115	.71
.02	1 1/16 x 1⅝	PX-1215	.76

2000 WVDC

.0005	1 3/16 x 1⅜	PX-352	.73
.001	1 3/16 x 1⅜	PX-212	.73
.005	1 3/16 x 1¾	PX-252	.73
.006	1 3/16 x 1¾	PX-262	.73
.0075	1 3/16 x 1¾	PX-2752	.73
.01	1 3/16 x 1¾	PX-112	.73
.02	1 3/16 x 2⅛	PX-122	.79
.03	1 3/16 x 2⅛	PX-132	.82
.04	1 3/16 x 2½	PX-142	.82
.05	1 3/16 x 2½	PX-152	.85

SUN RADIO — For your SPRAGUE equipment. Complete stocks — Prompt delivery — Lowest price!

JAN MOLDED MICA CAPACITORS

STANDARD AND SILVERED MICA

Meet applicable MIL C5A specifications. Subjected to exhaustive quality control procedures to insure maximum quality for the most exacting military and commercial requirements. Cases wax dipped for salt water immersion seal.

STANDARD TYPE: Low loss phenolic case, tolerance ± 20% (A. & B. Characteristics). For ± 10%, add 10% to price. For ± 5%, add 25% to price.

SILVERED MICA: Red case, tolerance ± 5% (C., D. & E. Characteristics). For ± 2%, add 15% to price. For ± 1%, add 25% to price.

D. C. working volts 500V, except those shown with asterisk 300 V.

CASE SIZES

CM15 1 to 300 MMF 9/32 x 1/2 x 3/16"
CM15 301 to 510 MMF 9/32 x 1/2 x 7/32"
CM19 11/16 x 7/16 x 7/32"
CM20 25/32 x 7/16 x 7/32"
CM25 7/16 x 1-1/64 x 7/32"
CM30 13/16 x 13/16 x 9/32"
CM35 13/16 x 13/16 x 11/32"
CM40 1 x 5/8 x 11/32"
CM42 1-1/2 x 13/16 x 11/32"

Note—S.M. denotes silvered mica. ST denotes standard mica.

Cap. in MMF.	Type CM 15 S.M. Net Ea.	Type CM 19 & 20 ST. Net Ea.	Type CM 19 & 20 S.M. Net Ea.	Type CM 25 ST. Net Ea.	Type CM 25 S.M. Net Ea.	Type CM 30 ST. Net Ea.	Type CM 30 S.M. Net Ea.	Type CM 35 ST. Net Ea.	Type CM 35 S.M Net Ea.	Type CM 40 ST. Net Ea.	Type CM 40 S.M. Net Ea.	Type CM 42 ST. Net Ea.	Type CM 42 S.M. Net Ea.
1	$.24												
2	.24												
3	.24												
5	.24	$.18	$.24										
10	.24	.18	.24										
12	.24	.18	.24										
15	.24	.18	.24										
18	.24	.18	.24										
20	.24	.18	.24										
22	.24	.18	.24										
24	.24	.18	.24										
27	.24	.18	.24										
30	.24	.18	.24										
33	.24	.12	.24										
36	.24	.12	.24										
39	.24	.12	.24										
43	.24	.12	.24										
47	.24	.12	.24										
50	.24	.12	.24										
51	.24	.12	.24	$.15	$.24								
56	.24	.12	.24	.15	.24								
62	.24	.12	.24	.15	.24								
68	.24	.12	.24	.15	.24								
75	.24	.12	.24	.15	.24								
82	.27	.12	.24	.15	.24								
91	.27	.12	.24	.15	.24								
100	.27	.12	.24	.15	.24								
110	.27	.12	.27	.24	.27								
120	.27	.12	.27	.24	.27								
130	.27	.15	.27	.24	.27								
150	.27	.15	.27	.24	.27								
160	.30	.15	.27	.24	.27								
180	.30	.15	.27	.24	.27								
200	.30	.15	.27	.24	.27								
220	.33	.15	.27	.24	.27								
240	.33	.18	.33	.18	.33								
250	.33	.18	.33	.18	.33								
270	.36	.18	.33	.18	.33								
300	.36	.18	.33	.18	.33								
330	.39	.18	.33	.18	.33								
360	.42	.18	.33	.18	.33								
390	.42	.18	.39	.18	.39								
430	.45	.18	.39	.18	.39								
470	.48	.18	.42	.18	.42								
500	.48	.18	.42	.18	.42								
510	.48	.18	.42	.18	.42	$.18	$.42						
560		.21	.45	.21	.45	.18	.45						
620		.21	.48	.21	.48	.18	.45						
680		.21	.48	.21	.48	.18	.48						
750		.21	.48	.21	.54	.18	.48						
820		.24	.51	.24	.57	.18	.51						
910		.27	.51	.27	.60	.18	.54						
1,000		.27	.54	.27	.66	.21	.60						
1,100		.30	.54	.30	.72	.21	.60						
1,200		.30	.60	.30	.78	.21	.69						
1,300		.30	.60	.30	.84	.21	.69						
1,500		.36	.66	.36	.90	.24	.75						
1,600		.36	.66	.36	.96	.24	.75						
1,800		.42	.72	.42	1.02	.27	.75						
2,000		.45	.78	.45	1.08	.27	.81						
2,200					.27	.87	.81						
2,400					.30	.90	.96						
2,500					.30	1.00	.96						
10,000					.93	2.30	1.08			.$33	$1.16		
3,000					.36	1.16	1.16			.36	1.23		
3,300					.36	1.16	1.16			.36	1.23		
3,600					.36	1.26	1.20			.39	1.26		
3,900					.39	1.29	1.20			.42	1.29		
4,300					.39	1.29	1.26			.42	1.29		
4,700					.39	1.29	1.26			.42	1.29		
5,000					.42	1.22	1.29			.45	1.35		
5,100					.42	1.22	1.29			.45	1.35		
5,600					.42	1.32	1.35			.45	1.35		
6,200					.54	1.44	1.44			.63	1.74		
6,800					.63	1.74		.63	1.74	.69	1.90		
7,500					.69	1.83		.69	1.83	.84	2.19		
8,200					.78	1.90		.78	1.90	.84	2.31		
9,100					.78	2.10		.78	2.10	.84	2.64		
2,700					.30	2.31		.93	2.31	1.02	2.64		
12,000					*.96	* 2.55		$.96*	2.55			$1.08	$2.34
13,000												1.17	2.52
15,000						*1.20		*1.20		*3.00		1.32	2.88
16,000												1.38	3.06
18,000												1.56	3.42
20,000												1.68	3.78
22,000												1.80	4.14
24,000												1.98	4.50
25,000												2.04	4.68
27,000												*1.86	*4.50
30,000												*2.04	*4.68

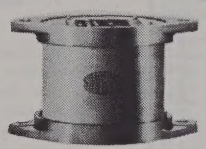
SANGAMO TYPE E MICA CAPACITORS

High voltage, heavy duty, porcelain-cased micas for RF by-pass in transmitters, diathermy, inductive heating and other applications. Standard tolerance ±20%. Overall size: 3½" H. x 4-1/16" L. x 2⅛" D. Mounting centers: 3-5/16".

Cap. in mfd	12,500 DC Test Volts Type No.	12,500 DC Test Volts Net Ea.	10,000 DC Test Volts Type No.	10,000 DC Test Volts Net Ea.	7,000 DC Test Volts Type No.	7,000 DC Test Volts Net Ea.	3,500 DC Test Volts Type No.	3,500 DC Test Volts Net Ea.	2,000 DC Test Volts Type No.	2,000 DC Test Volts Net Ea.
.00005	E1245	$6.47								
.0001	E1231	6.47								
.00025	E12325	6.47								
.0005	E1235	6.47								
.001	E1221	6.47			E721	$5.91				
.0015	E12215	7.73								
.002	E1222	8.82			E722	7.67				
.003			E1023	$10.61	E723	8.26				
.004			E1024	11.20			E3524	$8.26		
.005			E1025	11.79			E3525	7.67		
.01					E711	12.38	E3511	11.79		
.02							E3512	11.79		
.05							E3515	13.55	E215	$11.79
.1									E201	13.55

SANGAMO TYPE G CAPACITORS

Ceramic cased capacitors intended for service where highest voltage and R.F. current ratings are required. Widely used in transmitting and induction heating applications Cases conform to Jan Types CM75, CM80, CM85, CM90 and CM95.



TYPE G1 MICA CAPACITORS

Catalog Number	Capacity mfd.	Peak Wkg. Volts	Net Each
G1-641	.00001	6000	$20.84
G1-645	.00005	6000	22.46
G1-631	.0001	6000	23.87
G1-632	.0002	6000	23.87
G1-634	.0004	6000	26.08
G1-635	.0005	6000	27.43
G1-621	.001	6000	27.43
G1-6215	.0015	6000	28.75
G1-622	.002	6000	28.75
G1-623	.003	6000	29.75
G1-624	.004	6000	29.75
G1-625	.005	6000	29.75
G1-526	.006	5000	30.25
G1-511	.01	5000	30.25
G1-4115	.015	4000	30.25
G1-312	.02	3000	30.25

TYPE G3 MICA CAPACITORS

Catalog Number	Capacity mfd.	Peak Wkg. Volts	Net Each
G3-2045	.00005	20000	$65.22
G3-2031	.0001	20000	70.62
G3-2032	.0002	20000	77.09
G3-20325	.00025	20000	77.09
G3-2033	.0003	20000	77.09
G3-2035	.0005	20000	80.65
G3-2038	.0008	20000	80.65
G3-2021	.001	20000	83.00
G3-15215	.0015	15000	84.30
G3-1522	.002	15000	84.30
G3-1523	.003	15000	88.94
G3-1524	.004	15000	88.94
G3-1025	.005	10000	88.94
G3-1026	.006	10000	88.94
G3-1028	.008	10000	88.94
G3-1011	.01	10000	88.94
G3-512	.02	5000	88.94
G3-313	.03	3000	88.94

TYPE G2 MICA CAPACITORS

Catalog Number	Capacity mfd.	Peak Wkg. Volts	Net Each
G2-1031	.0001	10000	$38.54
G2-10315	.00015	10000	38.54
G2-1032	.0002	10000	38.54
G2-10325	.00025	10000	38.54
G2-1035	.0005	10000	38.54
G2-1021	.001	10000	38.54
G2-10212	.0012	10000	38.54
G2-10215	.0015	10000	38.54
G2-1022	.002	10000	38.54
G2-823	.003	8000	38.54
G2-824	.004	8000	38.54
G2-525	.005	5000	38.54
G2-526	.006	5000	40.66
G2-511	.01	5000	40.66
G2-4115	.015	4000	40.66
G2-312	.02	3000	40.66

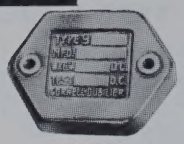
TYPE G4 MICA CAPACITORS

Catalog Number	Capacity mfd.	Peak Wkg. Volts	Net Each
G4-3043	.00003	30000	$98.73
G4-3045	.00005	30000	98.73
G4-3031	.0001	30000	123.66
G4-30315	.00015	30000	123.66
G4-30325	.00025	30000	130.04
G4-3035	.0005	30000	130.04
G4-3038	.0008	30000	130.04
G4-3021	.001	30000	134.71
G4-25215	.0015	25000	134.71
G4-2022	.002	20000	134.71
G4-2023	.003	20000	134.71
G4-2024	.004	20000	137.80
G4-1525	.005	15000	142.30
G4-1526	.006	15000	148.38
G4-1228	.008	12000	152.88
G4-1011	.01	10000	160.19
G4-612	.02	6000	160.19
G4-514	.04	5000	160.19

TYPE G5 MICA CAPACITORS

Catalog Number	Capacity mfd.	Peak Wkg. Volts	Net Each
G5-5045	.00005	50000	$260.48
G5-3531	.0001	35000	272.83
G5-35325	.00025	35000	296.35
G5-3534	.0004	35000	296.35
G5-3535	.0005	35000	319.87
G5-3521	.001	35000	329.87
G5-3022	.002	30000	316.34
G5-30225	.0025	30000	322.22
G5-3023	.003	30000	333.98
G5-2525	.005	25000	333.98
G5-2026	.006	20000	333.98
G5-1511	.01	15000	333.98

TYPE 4



TYPE 9

CORNELL-DUBILIER

Low-Power Molded Mica Capacitors

C-D types 4 and 9 mica capacitors are designed to meet applications in power amplifiers and low-power transmitters. They are principally employed for grid and plate blocking purposes and for r.f. by-pass functions. **The units are molded in a low-loss bakelite and have a special salt water immersion seal against humidity.**

In the case of type 9 the two terminals are tapped to receive mounting screws.

STANDARD TOLERANCE ±10%. Also available on order in plus or minus 5% and 2%. For capacity tolerance of: 5% add 15c to list prices; 2% add 40c to list prices.

EQUIVALENT JAN TYPE NUMBERS

C-D Type	JAN Type
4	CM45
4D	CM50
9	CM55
9A	CM56
9D	CM60
9DA	CM61

TYPE 4

Cat. No.	Cap. Mfd.	Net Price
1200 V. D.C. Test— 600 V. D.C. Working		
4-14050	.00005	$ .72
4-13010	.0001	.72
4-13020	.0002	.72
4-13025	.00025	.72
4-13030	.0003	.72
4-13040	.0004	.72
4-13050	.0005	.72
4-12010	.001	.72
4-12015	.0015	.72
4-12020	.002	.78
4-12025	.0025	.78
4-12030	.003	.87
4-12040	.004	.90
4-12050	.005	.93
4-12060	.006	1.08
4-12070	.007	1.11
4-12080	.008	1.14
4-11010	.01	1.29
4-11015	.015	1.59
4-11020	.02	1.83
4-11025	.025	2.16
4-11030	.03	2.67
2500 V. D.C. Test— 1200 V. D.C. Working		
4-24050	.00005	$ .96
4-23010	.0001	.96
4-23020	.0002	.96
4-23025	.00025	.96
4-23030	.0003	.96
4-23050	.0005	.96
4-22010	.001	1.08
4-22015	.0015	1.38
4-22020	.002	1.44
4-22025	.0025	1.68
4-22030	.003	1.83
4-22040	.004	1.83
4-22050	.005	1.98
4-22060	.006	1.98
4-22080	.008	2.31
4-21010	.01	3.06
5000 V. D.C. Test— 2500 V. D.C. Working		
4-54050	.00005	$1.14
4-53010	.0001	1.14
4-53020	.0002	1.14
4-53025	.00025	1.32
4-53030	.0003	1.35
4-53050	.0005	1.50
4-52010	.001	1.68
4-52015	.0015	2.13
4-52020	.002	2.49
4-52025	.0025	2.70
4-52030	.003	2.94
4-52040	.004	3.39
4-52050	.005	3.84

TYPE 9

Cat. No.	Cap. Mfd.	Net Price
1200 V. D.C. Test— 600 V. D.C. Working		
9-14050	.00005	$ .87
9-13010	.0001	.87
9-13025	.00025	.87
9-13050	.0005	.87
9-12010	.001	.87
9-12020	.002	.99
9-12025	.0025	1.02
9-12030	.003	1.11
9-12040	.004	1.20
9-12050	.005	1.26
9-12060	.006	1.32
9-12080	.008	1.47
9-11010	.01	1.68
9-11015	.015	1.83
9-11020	.02	2.13
9-11025	.025	2.61
9-11030	.03	2.73
9-11040	.04	3.51
9-11050	.05	4.26
9-11060	.06	4.83
2500 V. D.C. Test— 1200 V. D.C. Working		
9-24050	.00005	$ .96
9-23010	.0001	.96
9-23025	.00025	.96
9-23050	.0005	.96
9-22010	.001	1.14
9-22020	.002	1.50
9-22025	.0025	1.68
9-22030	.003	1.77
9-22040	.004	1.86
9-22050	.005	1.98
9-22060	.006	2.07
9-22080	.008	2.46
9-21010	.01	2.82
9-21015	.015	3.48
9-21020	.02	4.23
9-21025	.025	4.74
9-21030	.03	4.86
5000 V. D.C. Test— 2500 V. D.C. Working		
9-54050	.00005	$1.14
9-53010	.0001	1.14
9-53025	.00025	1.29
9-53050	.0005	1.53
9-52010	.001	1.74
9-52020	.002	2.55
9-52025	.0025	2.76
9-52030	.003	3.06
9-52040	.004	3.39
9-52050	.005	3.72
9-52060	.006	3.81
9-52080	.008	4.11
9-51010	.01	4.38
9-51015	.015	4.83

You can be sure of prompt excellent service when you call on SUN RADIO for your CORNELL-DUBILIER Capacitors.

CORNELL-DUBILIER

QUIETONE R.F. ATTENUATION FILTERS

NF-10335

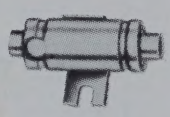
NF-10315-1

NF-10360-1
NF-1H197

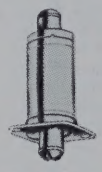
"QUIETONE" PI FILTERS

Cornell-Dubilier PI filters are available in a wide range of insertion loss characteristics to suit the requirements of every application. Several hundred standard designs have been established in single and multiple circuits with current ratings up to 350 amperes and in voltage ratings both DC and AC up to 2000 cycles. Designed to provide maximum insertion loss at all frequencies from 14 kilocycles up to 1000 megacycles.

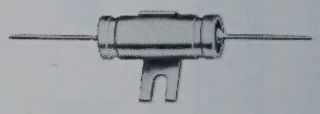
Cat. No.	Voltage AC	Voltage DC	Current Amps.	Line Freq. Cycles	Insertion Loss in Decibels■ at Frequency in Megacycles .16	1.0	20	50	100	200	400	Net
NF-10335	....	50	20	....	65	80	65	45	40	40	....	$10.05
NF-10360-1	....	100	5.0	....	50	80	85	70	60	55	50	6.30
NF-10280-1†	125	300	2.0	0-60	55	70	60	50	40	40	....	9.84
NF-1H197	130	400	1.0	0-400	52	95	85	70	70	60	50	5.61
NF-10315-1	130	500	7.0	0-1700	55	90+	90+	90+	75	70	60	16.80
NF-10286-1†	220	400	15	0-60	60	100+	90+	79	85	65	60	36.00



NFT-1D250
NF-10270-5
NFT-191



NF-10270-1
NFT-1F246



NFT-1D086
NFT-1D087
NFT-1D088

"QUIETONE" FEED-THRU CAPACITOR FILTERS

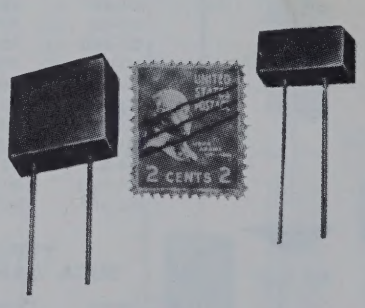
The FEED-THRU capacitor filter is a three-terminal network with internal construction and lead connections arranged for minimum impedance. Cornell-Dubilier FEED-THRU capacitors closely follow the reactance curve of an ideal capacitor at all frequencies up to 400 megacycles and even beyond.

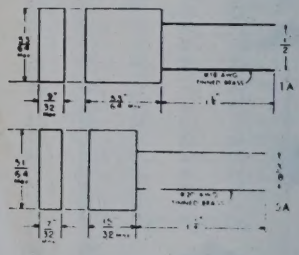
FEED-THRU capacitor filters are available in single and multiple circuit ratings from 1 ampere to 350 amperes in both DC and AC applications and frequencies up to 2000 cycles. The Cornell-Dubilier FEED THRU capacitor filter gives maximum insertion loss per unit volume, weight and cost of any similar type of device.

Cat. No.	Voltage AC	Voltage DC	Current Amps.	Cap. Mfd.	Line Freq. Cycles	Insertion Loss in Decibels■ at Frequency in Megacycles .16	1.0	2.0	20	100	200	300	400	Net
NF-10264-1†	...	100	20	1.75	....	33	50	54	59	80+	80+	80+	70	$6.42
NF-10081	....	100	100	2.25	....	30	45	56	60	80+	80+	80+	80+	10.50
NFT-1F246	115	200	20	.50	0-400	17	35	39	46	72	80+	80+	80+	2.70
NFT-1D250	115	200	20	.50	0-400	23	38	44	55	80+	80+	80+	80+	3.30
NF-1A084J	250	250	100	.55	0-400	24	33	47	50	80+	80+	80+	80+	11.70
NFT-1D086	330	600	20	.10	0-400	9	25	33	46	58	68	69	70	1.45
NFT-1D087	330	600	20	.25	0-400	17	35	39	46	72	80+	80+	80+	2.25
NFT-1D088	330	600	20	.50	0-400	23	38	44	55	80+	80+	80+	80+	2.70

CORNELL-DUBILIER

"Super Micadon" Encapsulated Molded-Case Midget Mica Capacitors





Cornell-Dubilier "SUPER MICADONS" represent an entirely new conception in Midget Mica Capacitor construction. The vastly improved design and construction of the new "SUPER MICADONS" (Types 1A and 5A) now makes it possible to produce miniature units of greatly increased capacitance and superior quality over conventional units of the same case size.

TYPE 1A

STD. TOL.: ±5%†. **TEMP. RANGE:** −55°C to +130°C.

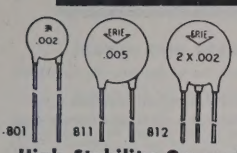
Cat. No.	Cap. Mfds.	VDCW	Net Price
1A5D51	.0051	500	$1.44
1A5D68	.0068	500	1.59
1A5D82	.0082	500	1.59
1A351	.01	500	1.59
1A3515	.015	500	2.07
1A352	02	300	2.40

TYPE 5A

STD. TOL.: ±5% (or 1 MMFD., whichever is greater)†
TEMP. RANGE: −55°C to +130°C

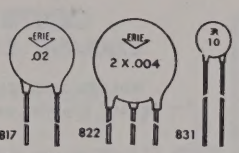
Cat. No.	Cap. Mfds.	VDCW	Net Price
5A5V5	.000005	500	$ .36
5A5Q20	.00002	500	.36
5A5Q33	.000033	500	.36
5A5Q51	.000051	500	.36
5A5T1	.0001	500	.36
5A5T24	.00024	500	.36
5A5T39	.00039	500	.42
5A5T51	.00051	500	.45
5A5T75	.00075	500	.60
5A5D1	.001	500	.75
5A5D15	.0015	500	1.02
5A5D2	.002	500	1.14
5A5D3	.003	500	1.44
5A3D39	.0039	300	1.50
5A3D51	.0051	300	1.59

† Tolerances to ±½ of 1% available on request. ‡For ±2% Tol.—add 15% to Net Price. For ±1% Tol.—add 25% to Net Price. For ±½ of 1% Tol.—add 50% to Net Price.



ERIE DISC CERAMICONS

Consist of a flat ceramic dielectric with silver fired onto it. Lead wires firmly soldered to the silver electrodes. Phenolic protective coating overall. Low series inductance assures efficient high frequency operation.



High Stability General Purpose Ceramicons
600 — V D.C. W Tolerance ± 10

Catalog No.	Erie Part No.	Capacity	Body Size
ED-5	831-050	5 mmf	1/4"
ED-10	831-100	10 mmf	1/4"
ED-12	831-120	12 mmf	1/4"
ED-15	831-150	15 mmf	1/4"
ED-18	831-180	18 mmf	1/4"
ED-20	831-200	20 mmf	1/4"
ED-22	831-220	22 mmf	1/4"
ED-24	831-240	24 mmf	1/4"
ED-25	831-250	25 mmf	1/4"
ED-27	831-270	27 mmf	1/4"
ED-30	831-300	30 mmf	1/4"
ED-33	831-330	33 mmf	1/4"
ED-39	831-390	39 mmf	1/4"
ED-47	831-470	47 mmf	1/4"
ED-50	831-500	50 mmf	1/4"
ED-51	831-510	51 mmf	1/4"
ED-56	831-560	56 mmf	1/4"
ED-68	801-680	68 mmf	3/8"
ED-75	801-750	75 mmf	3/8"
ED-82	801-820	82 mmf	3/8"
ED-91	801-910	91 mmf	3/8"
ED-100	801-101	100 mmf	3/8"
ED-120	811-121	120 mmf	19/32"
ED-150	811-151	150 mmf	19/32"
ED-180	811-181	180 mmf	19/32"
ED-200	811-201	200 mmf	19/32"
ED-220	811-221	220 mmf	19/32"
ED-240	811-241	240 mmf	19/32"
ED-250	811-251	250 mmf	19/32"
ED-270	811-271	270 mmf	19/32"
ED-300	811-301	300 mmf	19/32"
ED-330	811-331	330 mmf	19/32"
ED-360	811-361	360 mmf	19/32"
ED-390	811-391	390 mmf	19/32"
ED-470	811-471	470 mmf	19/32"
ED-500	811-501	500 mmf	19/32"
ED-510	811-511	510 mmf	19/32"
ED-560	811-561	560 mmf	19/32"
ED-680	811-681	680 mmf	19/32"
ED-750	811-751	750 mmf	19/32"
ED-820	811-821	820 mmf	19/32"
ED-910	811-911	910 mmf	19/32"
ED-1000	811-102	1000 mmf	19/32"
ED-1200	811-122	1200 mmf	19/32"
ED-1500	811-152	1500 mmf	19/32"
ED-1800	811-182	1800 mmf	19/32"

5 Thru 1,000 mmf ..... Net Ea. $.15
Other Sizes ..... Net Ea. $.21

ERIE

High Voltage Disc Ceramicons

Built-in exactly the same fashion as the 600-V Disc Ceramicons, except that dielectric thickness has been increased to assure conservative ratings on all voltages. Standard tolerance is ± 20%.

Type and Voltage Code
Cat. No. 1R5KV—1500 WV D.C.
Cat. No. 3KV —3000 WV D.C.
Cat. No. 6KV — 600 WV D.C.

Cap. in Mmf.	Cat. No. 1R5KV Dia.	Net Ea.	Cat. No. 3KV Dia.	Net Ea.	Cat. No. 6KV Dia.	Net Ea.
4.7	3/8"	$ .18	3/8"	$ .24	19/32"	.30
6.8	3/8"	.18	3/8"	.24	3/4"	.30
10	3/8"	.18	3/8"	.24	3/4"	.30
15	3/8"	.18	3/8"	.24	19/32"	.30
22	3/8"	.18	19/32"	.24	3/4"	.30
33	3/8"	.18	19/32"	.24	3/4"	.30
47	19/32"	.18	19/32"	.24		
56			3/4"	.24		
68	19/32"	.18	3/4"	.24	19/32"	.30
100	19/32"	.18	3/4"	.24	3/4"	.30
150	3/8"	.18	3/4"	.24	19/32"	.30
180	3/8"	.18			3/4"	.30
220	3/8"	.18	3/4"	.24	3/4"	.30
330	3/8"	.18	3/8"	.24		
470	3/8"	.18	3/8"	.24		
680	3/8"	.30	3/8"	.24		
1000	3/8"	.30	19/32"	.24		
1500	19/32"	.30	19/32"	.24		
2200	19/32"	.30	3/4"	.24		
3300	19/32"	.30	3/4"	.24		
4700	3/4"	.30				
5600	3/4"	.36				
6200	3/4"	.36				

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

Hi-K By-Pass and Coupling Ceramicons
600 — V. D.C. W

Capacity Tolerance — GMV

Erie Part No.	Capacity	Body Size
831-471	.00047 mfd	1/4"
831-801	.0008 mfd	1/4"
801-.001	.001 mfd	3/8"
801-.0012	.0012 mfd	3/8"
801-.0015	.0015 mfd	3/8"
801-.002	.002 mfd	3/8"
811-.0022	.0022 mfd	19/32"
811-.0025	.0025 mfd	19/32"
811-.0027	.0027 mfd	19/32"
811-.003	.003 mfd	19/32"
811-.0033	.0033 mfd	19/32"
811-.004	.004 mfd	19/32"
811-.0047	.0047 mfd	19/32"
811-.005	.005 mfd	19/32"
811-.0068	.0068 mfd	19/32"
811-.01	.01 mfd	19/32"
817-.015	.015 mfd	19/32"
817-.02	.02 mfd	19/32"

.00047 thru .01 mfd. ..... Net Ea. $.15
.015 mfd. ..... Net Ea. .21
02 mfd. ..... Net Ea. .24

Hi-K Dual Ceramicons

Erie Part No.	Capacity	Body Size
812-.001	2x.001 mfd	19/32"
812-.0015	2x.0015 mfd	19/32"
812-.002	2x.002 mfd	19/32"
822-.003	2x.003 mfd	3/4"
822-.004	2x.004 mfd	3/4"

Net Each $.24

ERIE BUTTON

SILVER MICA CAPACITORS

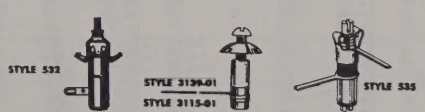
Unmatched for VHF and UHF work where compact size minimum series inductance and high leakage resistance are essential. They offer high stability of capacitance over the full temperature range—55° C. to 85° C.

Type 370CB has ring-type metal shell with three soldering ears. Hig potential terminal at either end for feed-through connection.

Type 370FA is fastened to chassis with 3-48 screw.

Operating Voltage — 500 V DC.

Cap. in Mmfd.	Net Ea. 10% Tol.	Net Ea. 5% Tol.	Cap. in Mmfd.	Net Ea. 10% Tol.	Net Ea. 5% Tol.
15	$ .91	$1.15	250	$ .91	$1.15
25	.91	1.15	300	.97	1.23
50	.91	1.15	400	1.00	1.26
100	.91	1.15	500	1.06	1.35
150	.91	1.15	750	1.54	1.97
200	.91	1.15	1000	1.85	2.32



ERIE TUBULAR TRIMMERS

Compact tubular trimmers ideal for applications calling for a low minimum capacity and a high ratio of maximum to minimum capacity. Types 532 and 535 have molded plastic dielectric. Types 3115 and 3139 have ceramic dielectric.

Catalog No.	Cap Range (MMF)	Panel Thickness	Net Ea.
532-A	0.5-5	.040" to .065"	$ .32
532-B	1-8	.040" to .065"	.32
535-C	0.7-3	up to .050"	.41
3115-D	0.5-3	.025" to .065"	.29
3115-E	1-4	.025" to .065"	.29
3139-D	0.5-3	.025" to .065"	.29
3139-E	1-4	.025" to .065"	.29

ERIE GENERAL PURPOSE CERAMICONS
TYPES GP-1, GP-2 & GP-3

Outstanding because of their high frequency characteristics, small size and rugged construction.

600V D.C. W
Standard Tolerance
± 10% 5 mmf thru 1,500 mmf
± 20% 1800 mmf thru 10,000 mmf

Catalog No.	Erie Part No.	Cap. MMF
GP-5	GP1K-050	5
GP-10	GP1K-100	10
GP-12	GP1K-120	12
GP-15	GP1K-150	15
GP-18	GP1K-180	18
GP-20	GP1K-200	20
GP-22	GP1K-220	22
GP-24	GP1K-240	24
GP-25	GP1K-250	25
GP-27	GP1K-270	27
GP-30	GP1K-300	30
GP-33	GP1K-330	33
GP-39	GP1K-390	39
GP-47	GP1K-470	47
GP-50	GP1K-500	50
GP-51	GP1K-510	51
GP-56	GP1K-560	56
GP-68	GP1K-680	68
GP-75	GP1K-750	75
GP-82	GP1K-820	82
GP-100	GP1K-101	100
GP-110	GP2K-111	110
GP-120	GP2K-121	120
GP-150	GP2K-151	150
GP-180	GP2K-181	180
GP-200	GP2K-201	200
GP-220	GP2K-221	220
GP-240	GP2K-241	240
GP-250	GP2K-251	250
GP-270	GP2K-271	270
GP-300	GP2K-301	300
GP-330	GP2K-331	330
GP-360	GP2K-361	360
GP-390	GP2K-391	390
GP-470	GP2K-471	470
GP-500	GP2K-501	500
GP-510	GP2K-511	510
GP-560	GP2K-561	560
GP-680	GP2K-681	680
GP-750	GP2L-751	750
GP-820	GP2L-821	820
GP-1,000	GP2L-102	1,000
GP-1,200	GP2L-122	1,200
GP-1,500	GP2L-152	1,500
GP-1,800	GP2-333-182	1,800
GP-2,000	GP2-333-202	2,000
GP-2,200	GP2-333-222	2,200
GP-2,500	GP2-333-252	2,500
GP-2,700	GP2-333-272	2,700
GP-3,000	GP2-333-302	3,000
GP-3,300	GP2-333-332	3,300
GP-4,000	GP2-333-402	4,000
GP-4,700	GP2-333-472	4,700
GP-5,000	GP2-333-502	5,000
GP-5,600	GP3-333-562	5,600
GP-6,000	GP3-333-602	6,000
GP-6,800	GP3-333-682	6,800
GP-7,500	GP3-333-752	7,500
GP-10,000	GP3-333-103	10,000

5 thru 1,500 mmf. ..... Net Ea. .15
1,800 thru 10,000 mmf. ..... Net Ea. .33

ERIE CERAMICON TRIMMERS

Provide top stability under the most exacting conditions. Fired silver electrodes are applied to top of base and rotor, so that capacity is changed by varying the amount of overlap. Capacity change per degree of rotation is approximately constant.

Erie Part No.	Capacity Range (MMF)	Temperature Coefficient	Net Ea.
TS2A-1.5	1.5-7	NPO	$ .88
TS2A-3	3-12	NPO	.88
TS2A-4	4-30	N500	.88
TS2A-5	5-20	N300	.88
TS2A-7	7-45	N500	.88
TD2A-1.5	1.5-7	NPO	1.47
TD2A-3	3-12	NPO	1.47
TD2A-4	4-30	N500	1.47
TD2A-5	5-20	N300	1.47
TD2A-7	7-45	N500	1.47
557-1.5	1.5-7	NPO	.73
557-3	3-12	NPO	.73
557-5	5-25	NPO	.73
557-5	5-30	N750	.73
557-8	8-50	N750	.73

CERAMIC CAPACITORS

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & Electronics Co. Inc.

CENTRALAB CERAMIC CAPACITORS

TC TEMPERATURE COMPENSATING TUBULARS

Designed especially to limit frequency drift in r.f. circuits where temperature variations are prevalent. These capacitors are constructed with c ceramic body which changes capacities as the temperature varies. Use Centralab TC Hi-Kaps when servicing superhet receivers—replace older types in oscillator and detector circuits in TV, AM and FM receivers. 1,200 volts D.C. test; 600 volts D.C. working.

BODY DIMENSIONS

Size	Diameter	Length
CC20	.200"	.400"
CC25	.200"	.690"
CC32	.225"	.860"
CC35	.285"	1.165"
CC45	.285"	1.625"

TCZ TUBULAR HI-KAP

All TC Hi-Kaps conform to JAN-C-20A specifications. NPO Units (JAN-CH-CJ-CK) which show zero capacitance change over temperature range —20° C. to +85° C.

Cap. mmf.	Tolerance	CRL Cat. No.	Size Type
.5	±.25 mmf.	TCZ-.5	CC20
.68	±.25 mmf.	TCZ-.68	CC20
1.0	±.25 mmf.	TCZ-1	CC20
1.5	±.25 mmf.	TCZ-1.5	CC20
2.2	±.25 mmf.	TCZ-2.2	CC20
3.3	±.25 mmf.	TCZ-3.3	CC20
4.7	±.5 mmf.	TCZ-4.7	CC20
6.8	±.5 mmf.	TCZ-6.8	CC20
10	±.5 mmf.	TCZ-10	CC20
12	±.5 mmf.	TCZ-12	CC20
15	±.5 mmf.	TCZ-15	CC20
18	±.5 mmf.	TCZ-18	CC20
20	±.5 mmf.	TCZ-20	CC20
22	±2½%	TCZ-22	CC20
24	±2½%	TCZ-24	CC20
25	±2½%	TCZ-25	CC25
27	±2½%	TCZ-27	CC25
30	±2½%	TCZ-30	CC25
33	±2½%	TCZ-33	CC25
36	±2½%	TCZ-36	CC25
39	±2½%	TCZ-39	CC25
43	±2½%	TCZ-43	CC25
47	±2½%	TCZ-47	CC25
50	±2½%	TCZ-50	CC25
51	±2½%	TCZ-51	CC25
56	±2½%	TCZ-56	CC25
62	±2½%	TCZ-62	CC32
68	±2½%	TCZ-68	CC32
75	±2½%	TCZ-75	CC32
82	±2½%	TCZ-82	CC32
91	±2½%	TCZ-91	CC32
100	±2½%	TCZ-100	CC32
110	±5%	TCZ-110	CC32
120	±5%	TCZ-120	CC32
130	±5%	TCZ-130	CC35
150	±5%	TCZ-150	CC35
160	±5%	TCZ-160	CC35
180	±5%	TCZ-180	CC35
200	±5%	TCZ-200	CC45
220	±5%	TCZ-220	CC45
240	±5%	TCZ-240	CC45
270	±5%	TCZ-270	CC45
300	±5%	TCZ-300	CC45

Type TCZ. Type TCN.....Net Each $.29

TCN TUBULAR HI-KAP

N750 Units (JAN-UJ, UK) which show capacity change of minus 750 parts per million[2a] per each degree C rise in temperature.

Cap. mmf.	Tolerance	CRL Cat. No.	Size Type
3.3	—.5 mmf.	TCN-3.3	CC20
5	—.5 mmf.	TCN-5	CC20
10	—.5 mmf.	TCN-10	CC20
12	—.5 mmf.	TCN-12	CC20
15	—.5 mmf.	TCN-15	CC20
18	—.5 mmf.	TCN-18	CC20
20	—.5 mmf.	TCN-20	CC20
22	—2½%	TCN-22	CC20
24	—2½%	TCN-24	CC20
25	—2½%	TCN-25	CC20
27	—2½%	TCN-27	CC20
30	—2½%	TCN-30	CC20
33	—2½%	TCN-33	CC20
36	—2½%	TCN-36	CC20
39	—2½%	TCN-39	CC20
43	—2½%	TCN-43	CC20
47	—2½%	TCN-47	CC20
50	—2½%	TCN-50	CC20
51	—2½%	TCN-51	CC20
56	—2½%	TCN-56	CC20
62	—2½%	TCN-62	CC20
68	—2½%	TCN-68	CC25
75	—2½%	TCN-75	CC25
82	—2½%	TCN-82	CC25
91	—2½%	TCN-91	CC25
100	—2½%	TCN-100	CC25
110	—5%	TCN-110	CC25
120	—5%	TCN-120	CC25
130	—5%	TCN-130	CC25
150	—5%	TCN-150	CC25
160	—5%	TCN-160	CC25
180	—5%	TCN-180	CC32
200	—5%	TCN-200	CC32
220	—5%	TCN-220	CC32
240	—5%	TCN-240	CC32
270	—5%	TCN-270	CC32
300	—5%	TCN-300	CC32
330	—5%	TCN-330	CC32
360	—5%	TCN-360	CC32
390	—5%	TCN-390	CC35
430	—5%	TCN-430	CC35
470	—5%	TCN-470	CC35
510	—5%	TCN-510	CC35
560	—5%	TCN-560	CC45
620	—5%	TCN-620	CC45
680	—5%	TCN-680	CC45
750	—5%	TCN-750	CC45

INTERMEDIATE TC TUBULARS
TYPES TCA AND TCL

The addition of Negative 330 and Negative 1500 TC Tubular Capacitors to the Centralab line increases the already complete selection and makes the CRL TC list the most useful and flexible of any stock manufacturer. Values most carefully selected from the most popular types in manufacturing usage. All units meet JAN specifications for military use. Color coded in compliance with RETMA and JAN specs. Intermediate values allow additional TC values without combining two or more standard capacitors. Packaged one per envelope with complete data, five envelopes per display carton.

TCA — N330 TC UNITS

Cap. mmf.	Tolerance	Cat. No.	Size Type
10	±.5 mmf.	TCA-10	CC20
15	±2½%	TCA-15	CC20
22	±2½%	TCA-22	CC20
33	±2½%	TCA-33	CC20
47	±2½%	TCA-47	CC25
68	±2½%	TCA-68	CC25
100	±2½%	TCA-100	CC32

Type TCA ... Net Each $ .29

TCL — N1500 TC UNITS

Cap. mmf.	Tolerance	Cat. No.	Size Type
10	±.5 mmf.	TCL-10	CC20
15	±2½%	TCL-15	CC20
22	±2½%	TCL-22	CC20
33	±2½%	TCL-33	CC20
47	±2½%	TCL-47	CC20
68	±2½%	TCL-68	CC20
100	±2½%	TCL-100	CC25

Type TCL .... Net Each $ .29

TYPE S1 & S2 TUBULAR STANDOFF CAPACITORS

Designed for bypassing RF to ground in low power transmitter-exciter units, receivers and similar HF, UHF, and VHF circuits. Size—Type S1—⅝" maximum length. S2—⅞" maximum length. 500 V.D.C.W., 1,000 V.D.C. Flash Test.

TYPE S1 CERAMIC STANDOFF CRL

Cap. mmf.	Cat. No.	Tolerance
50	S1-500	±10%
100	S1-101	±10%
250	S1-251	±10%
470	S1-471	±10%
500	S1-501	±10%
680	S1-681	±10%
1,000	S1-102	±20%
1,500	S1-152	±20%
2,400	S1-242	±20%
2,500	S1-252	±20%

Type S1.....Net Each $ .35

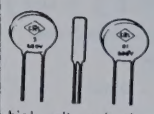
TYPE S2 CERAMIC STANDOFF CRL

Cap. mmf.	Cat. No.	Tolerance
5,000	S2-502	±20%
7,500	S2-752	GMV
10,000	S2-103	—20% +80%

Type S2.....Net Each $ .55

Type 950 High Accuracy (±1%) Capacitors

MOLDED DISC CERAMIC HI-KAPS
For Bypass Coupling and General Applications



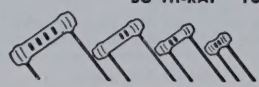
Molded disc ceramics feature highest available breakdown to ground, highest lead strength, and resistance to mechanical damage, closest tolerance. "MD's" can be placed directly against a chassis, or adjacent to high voltage leads without danger of flashover or breakdown. Low inductance makes these units highly efficient in high frequency circuits. They are not recommended for use in resonant or tuning applications. Voltage Rating: 1,000 V.D.C.W. to 5,000 mmf, 600 V.D.C.W. over 5,000 mmf. Maintain high capacity and stand up under +85° C. operation. Insulation — Molded Centrathene†. 2,500 V.D.C. breakdown to ground. Electrical properties constant to 3,000 megacycles. Insulation resistance of molding 300,000 megohms. Moisture absorption .005%. Power factor of molding .02%. Fungus resistant. Unaffected by ozone, salt water, any known acid, or solvent at room temperature. Will not become brittle at —55° C. Leads — No. 22 tinned copper 1½" long. All units one size — 11/16" diameter, 3/16" thick, maximum. Packaged — 5 units per polyethelene bag. 5 bags (25 units) per carton.

TYPE MD MOLDED DISC CERAMIC HI-KAPS®

Cap. mmf.	Per Cent Tolerance	CRL Cat. No.	Cap. mmf.	Per Cent Tolerance	CRL Cat. No.
5	±10%	—MD-050	390	±10%	—MD-391
10	±10%	—MD-100	400	±10%	—MD-401
12	±10%	—MD-120	470	±10%	—MD-471
15	±10%	—MD-150	500	±10%	—MD-501
18	±10%	—MD-180	560	±10%	—MD-561
20	±10%	—MD-200	600	±10%	—MD-601
22	±10%	—MD-220	680	±10%	—MD-681
25	±10%	—MD-250	750	±20%	—MD-751
27	±10%	—MD-270	820	±20%	—MD-821
33	±10%	—MD-330	1,000	±20%	—MD-102
39	±10%	—MD-390	1,200	±20%	—MD-122
47	±10%	—MD-470	1,500	±20%	—MD-152
50	±10%	—MD-500	1,800	±20%	—MD-182
56	±10%	—MD-560	2,000	±20%	—MD-202
68	±10%	—MD-680	2,200	±20%	—MD-222
75	±10%	—MD-750	2,500	±20%	—MD-252
82	±10%	—MD-820	2,700	±20%	—MD-272
100	±10%	—MD-101	3,000	±20%	—MD-302
120	±10%	—MD-121	3,300	±20%	—MD-332
150	±10%	—MD-151	4,000	±20%	—MD-402
180	±10%	—MD-181	4,700	±20%	—MD-472
200	±10%	—MD-201	5,000	±20%	—MD-502
220	±10%	—MD-221	5,600	GMV	—MD-562
250	±10%	—MD-251	6,800	GMV	—MD-682
270	±10%	—MD-271	7,500	GMV	—MD-752
300	±10%	—MD-301	10,000	GMV	—MD-103
330	±10%	—MD-331			

Type MD.....Net Each $0.18

BC HI-KAP TUBULARS



For by-pass, coupling and general use in AM, FM, TV, Audio, or other r.f. circuits. Double coating of Durez phenolic for extra protection. 85 C. plus operation. Tropicalized. 1200 volts D.C. test; 600 volts D.C. working. Packaged 5 per envelope (min.).

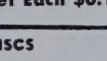
D6 SERIES BC HI-KAP TUBULARS

Cap. mmf.	Cat. No.	Tolerance	Size	Cap. mmf.	Cat. No.	Tolerance	Size
3	D6-030	±.5 mmf.	A	300	D6-301	±10%	A
5	D6-050	±10%	A	330	D6-331	±10%	A
10	D6-100	±10%	A	390	D6-391	±10%	B
12	D6-120	±10%	A	400	D6-401	±10%	B
15	D6-150	±10%	A	470	D6-471	±10%	B
18	D6-180	±10%	A	500	D6-501	±10%	B
20	D6-200	±10%	A	560	D6-561	±10%	B
22	D6-220	±10%	A	600	D6-601	±10%	B
25	D6-250	±10%	A	680	D6-681	±10%	B
27	D6-270	±10%	A	750	D6-751	±20%	A
33	D6-330	±10%	A	820	D6-821	±20%	A
39	D6-390	±10%	A	1,000	D6-102	±20%	A
40	D6-400	±10%	A	1,200	D6-122	±20%	B
47	D6-470	±10%	A	1,500	D6-152	±20%	B
50	D6-500	±10%	A	1,800	D6-182	±20%	B
56	D6-560	±10%	A	2,000	D6-202	±20%	B
68	D6-680	±10%	A	2,200	D6-222	±20%	B
75	D6-750	±10%	A	2,500	D6-252	GMV	B
82	D6-820	±10%	A	2,700	D6-272	GMV	B
91	D6-910	±10%	A	3,000	D6-302	GMV	B
100	D6-101	±10%	A	3,300	D6-332	GMV	C
120	D6-121	±10%	A	4,000	D6-402	GMV	C
150	D6-151	±10%	A	4,700	D6-472	GMV	C
180	D6-181	±10%	A	5,000	D6-502	GMV	D
200	D6-201	±10%	A	6,800	D6-682	GMV	D
220	D6-221	±10%	A	7,500	D6-752	GMV	D
250	D6-251	±10%	A	10,000	D6-103	GMV	D
270	D6-271	±10%	A				

BODY DIMENSIONS — A=.250" diam. .500" length — B=.250" diam., .750" length — C=.280" diam., .900" length — D=.335" diam., 1.210" length.

Type D6.....Net Each $0.12

MIN-KAP MINIATURE DISCS



250 VDCW units for smaller voltage requirement applications (500 VDC test)—extremely small in size—⅜" diam. in high capacity values. Packages five per envelope (MIN.). Ideal for hearing aid, miniature radio, intercom, and experimental rigs.

CAP.	VDCW	THICKNESS	CAT. NO.	Net Ea.
.005	250	.146"	DDM-502	$ .29
.01	250	.146"	DDM-103	.29
.02	250	.166"	DDM-203	.53
		DUAL UNIT		
2x .01	250	.166"	DDM2-103	.53

1000 V.D.C.W. STANDARD DISC HI-KAPS

- The most complete line of standard disc capacitors available.
- All units 1000 VDCW—100% tested at 2000 V.D.C.
- All units thru .005 mmf. built to Underwriters' Labs test specifications for use in A.C. lines.
- Close tolerances—smallest available sizes.
- Double coating of Durez phenolic insulation to give maximum breakdown strength.

CAP. mmf.	TOL.	DIAM.	CAT. NO.
3.3	±.5 mmf.	¼"	DD-3R3
5	.5 mmf.	¼"	DD-050
6.8	.5 mmf.	¼"	DD-6R8
10	±10%	¼"	DD-100
15	10%	¼"	DD-150
20	10%	¼"	DD-200
25	10%	¼"	DD-750
33	10%	¼"	DD-330
39	10%	¼"	DD-390
47	10%	¼"	DD-470
50	10%	¼"	DD-500
56	10%	¼"	DD-560
68	10%	¼"	DD-680
75	10%	¼"	DD-750
100	10%	¼"	DD-101
120	10%	¼"	DD-121
150	10%	¼"	DD-151
180	10%	¼"	DD-181
200	10%	¼"	DD-201
220	20%	¼"	DD-221
250	20%	¼"	DD-251
270	20%	¼"	DD-271
300	20%	¼"	DD-301
330	20%	¼"	DD-331
390	20%	¼"	DD-391
470	20%	¼"	DD-471
500	20%	¼"	DD-501
560	20%	¼"	DD-561
680	20%	¼"	DD-681
750	20%	¼"	DD-751
800	20%	¼"	DD-801
Mfd			
.001	20%	⅜"	DD-102
.0015	20%	⅜"	DD-152
.002	20%	⅜"	DD-202
.003	20%	½"	DD-302
.0047	20%	½"	DD-472
.005	20%	½"	DD-5022†
.005	GMV	⅝"	DD-502
.01	20%	¾"	DD-1032†
.01	GMV	¾"	DD-103
.02(600VDCW)	GMV	1⅛"	DD-203†

Type DD .....Net Each $ .12

Types shown with † .....Net Each $ .18

CERAMIC TRIMMER CAPACITORS

TYPE 827 MINIATURE MOLDED CERAMIC TRIMMER

Base, high grade phenolic. Two .120" diam. mounting holes spaced ⅞". Can be mounted on chassis through ⅜" diam. hole. Initial Insulation Resistance—10,000 megohms minimum. Body size: 17/32" x ¾".

Cap. Range mmf.	CRL Cat. No.	Cap. Range mmf.	CRL Cat. No.
2.5 to 7	827A	5.0 to 50	827C
3.0 to 12	827B	8.0 to 50	827D

Type 827..... Net Each $ .59

TYPE 822 CERAMIC TRIMMER

Medium weight Steatite body. Numbers ending in Z are of zero temperature coefficient (NPO); those ending in N are negative temperature coefficient. Both rotor and stator plates are of metallic silver fired to ceramic rotor and stator. Mounting holes are clearance for No. 4 machine screws. Body size, approx. 27/32" x 21/32".

Cap. Range mmf	CRL Cat. No	JAN-C-81 Number	Cap. Range mmf	CRL Cat. No	JAN-C-81 Number
1.5 to 3	822-DZ	—	4.5 to 25.0	822-AZ	CV11A250
1.5 to 7	822-EZ	CV11A070	2.0 to 6.0	822-DN	CV11D060
2.0 to 7.5	822-CZ	—	4.0 to 30.0	822-EN	CV11D300
2.5 to 13.0	822-BZ	—	4.5 to 25.0	822-CN	—
3.0 to 12.0	822-FZ	CV11A120	7.0 to 45.0	822-BN	CV11D450
			8.0 to 50.0	822-AN	—

Type 822.....Net Each $ .88

TYPE 823 CERAMIC TRIMMER

A trimmer of highest quality. Medium heavy Steatite base. Numbers ending in Z are of zero temperature coefficient (NPO); those ending in N are of negative temperature coefficient. Both rotor and stator plates are of metallic silver fired to ceramic rotor and stator. Mounting studs are set in the base, tapped ¼" deep for 4-40 machine screws. Body size, approx. 1¼" x 1⅛".

Cap. Range mmf.	CRL Cat. No.	JAN No.	Cap. Range mmf.	CRL Cat. No.	JAN No.
5.0 to 12.0	823-EZ	CV12A120	5.0 to 15.0	823-FN	CV12D150
6.0 to 25.0	823-DZ	CV12A250	8.0 to 25.0	823-EN	—
10.0 to 50.0	823-BZ	—	8.0 to 50.0	823-DN	CV12D500
12.0 to 60.0	823-AZ	CV12A620	10.0 to 100	823-BN	—
			20.0 to 125	823-AN	CV12D121

Type 823 .....Net Each $1.47

TYPE 820 TRIMMER

Lightweight ceramic body. Stator plate metallic silver fired to ceramic body. Mounting bracket with ⅛" hole and locating pin. Body size, approx. 27/32" x ⅝".

Cap. range mmf	Cat. No.	Net Ea.
2.6 to 6	820-A	$ .44
5 to 20	820-B	.44
7 to 35	820-C	.44

TYPE 829 TUBULAR CERAMIC TRIMMER

Special tiny, tubular trimmer, widely used in TV and FM applications. Ceramic body, .215" diameter.

Capacity Range mmf.	Body Length(B)	Cat. No.	Net Ea.	Capacity Range mmf.	Body Length(B)	Cat. No.	Net Ea.
.5 to 3	⅛"	829-3	$ .29	1 to 7.5	⅜"	829-7	$ .35
1 to 4	⅛"	829-4	.29	1.5 to 10	⅜"	829-10	.35
1 to 6	⅛"	829-6	.29				

CENTRALAB
CERAMIC CAPACITORS

3000-6000 V. HI-VO DISC CAPACITORS

These new units are highly efficient for by-pass-coupling in high frequency circuits under conditions of extreme humidity or temperature

- TEMPERATURE—Maintain high capacity and performance at 85° C.
- TOLERANCES—All units, ±20%.
- VOLTAGES—DD30 Series, 3000 VDCW 6000 VDC Test DD60 Series, 6000 VDCW 12,000 VDC Test.
- SIZES: (A) ¼" x ⅜" (B) ¼" x ¾"; (C) ¼" x ⅞"

CAPACITY MMF.	CAT. NO. 3000 VDCW	SIZE	CAT. NO. 6000 VDCW	SIZE
4.7	DD30-4R7	(A)	DD60-4R7	(A)
6.8	DD30-6R8	(A)	DD60-6R8	(A)
8.2	DD30-8R2	(A)	DD60-8R2	(A)
10	DD30-100	(A)	DD60-100	(B)
12	DD30-120	(A)	DD60-120	(B)
15	DD30-150	(A)	DD60-150	(B)
22	DD30-220	(A)	DD60-220	(B)
25	DD30-250	(A)	DD60-250	(B)
27	DD30-270	(A)	DD60 270	(B)
30	———	(A)	DD60-300	(B)
33	DD30-330	(A)	DD60-330	(B)
39	DD30-390	(A)	DD60-390	(B)
47	DD30-470	(A)	DD60-470	(B)
50	DD30-500	(A)	DD60 500	(B)
56	DD30-560	(A)	DD60-560	(B)
68	DD30-680	(A)	DD60-680	(B)
75	DD30-750	(A)	DD60-750	(B)
82	DD30-820	(A)	DD60-820	(B)
100	DD30-101	(A)	DD60-101	(B)
120	DD30-121	(A)	DD60-121	(B)
150	DD30-151	(A)	DD60-151	(B)
180	DD30-181	(A)	DD60-181	(B)
200	DD30-201	(A)	DD60-201	(B)
220	DD30-221	(A)	DD60-221	(B)
250	DD30-251	(A)	DD60-251	(B)
270	DD30-271	(A)	DD60-271	(B)
300	DD30-301	(A)	DD60-301	(B)
330	DD30-331	(A)	DD60-331	(B)
390	DD30-391	(A)	DD60-391	(B)
400	DD30-401	(A)	DD60-401	(B)
470	DD30-471	(A)	DD60-471	(B)
500	DD30-501	(A)	DD60-501	(B)
560	DD30-561	(A)	DD60-561	(B)
680	DD30-681	(A)	DD60-681	(B)
750	DD30-751	(A)	DD60-751	(B)
1000	DD30-102	(A)	DD60-102	(B)
1200	DD30-122	(A)	DD60-122	(B)
1500	DD30-152	(A)	DD60-152	(B)
2000	DD30-202	(C)	———	———
2200	DD30-222	(C)	———	———
2500	DD30-252	(C)	———	———
2700	DD30-272	(C)	———	———
3000	DD30-302	(C)	———	———

	Net Ea.
DD30 Series	$ .24
DD60 Series	.29

TYPE DD2 — DUAL DISCS

CAP. MFD.	TOL.	DIAM.	VDCW	CAT.NO.	Net Ea.
2 x .001	GMV	⅜"	600	DD2-102	$ .24
2 x .0015	GMV	⅜"	600	DD2-152	.24
2 x .005	—20% +80%	⅝"	600	DD2-502	.27

TYPE DD3 — PATENTED SHIELDED DUAL DISC HI-KAPS®

CAP. MFD.	TOL.	DIAM.	VDCW	CAT.NO.	Net Ea.
2 x .001	GMV	⅜"	600	DD3-102	$ .27
2 x .0015	GMV	⅜"	600	DD3-152	.27
2 x .002	GMV	½"	600	DD3-202	.27
2 x .005	GMV	½"	600	DD3-502	.29
2 x .01	GMV	⅝"	600	DD3-103	.29

CERAMIC FEED-THRU HI-KAPS
TYPES FT AND MFT

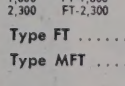
Type FT Feed-Thru or bushing mounted capacitor has been specifically designed and widely used in high frequency circuits where, in addition to feed thru, a capacity ground to either chassis or shield is desired. Lead inductance is virtually eliminated. Type MFT MINIATURE Eyelet Feed-Thru is a condensed version of the above units required in many new ultra-high frequency applications where space is at a premium. VOLTAGES—Both styles—500 V.D.C.W., 1,000 V.D.C. Test.

Cap. mmf.	CRL Cat. No.	Tolerance	Cap. mmf.	CRL Cat. No.	Tolerance
500	FT-500	±20%	50	MFT-50	±10%
1,000	FT-1,000	±20%	100	MFT-100	±10%
1,500	FT-1,500	—20% +50%	500	MFT-500	±20%
1,800	FT-1,800	—20% +50%	1,000	MFT-1,000	GMV
2,300	FT-2,300	—20% +50%			

Type FT ..... Net Each $ .59

Type MFT ..... Net Each $ .29

TYPE DF FLAT-PLATE HI-KAP CAPACITORS



600 V.D.C.W., 1200 V.D.C. Test—Low mass weight, unusual thinness plus inherent Centralab ceramic capacitor stability and permanence make these units extremely popular for general replacement application

Cap. mmf.	Cat. No.	Tolerance	Length	Height	Thick	Net Ea.
5,000	DF-503**	GMV	1-9/32"	27/32"	3/32"	$ .41
1,000	DF-104**	GMV	1-9/32"	27/32"	1/8"	.47

**Packaged 1 per envelope—5 units per carton

TRANSMITTING CAPACITORS

VOLTAGE—20,000 V.D.C.W., 30,000 V.D.C.T. R.F. LOAD—30 amps or greater for 30° C. rise at 30 mc. MOUNTING—Terminal ends tapped 10-32. DIMENSIONS—Overall length 2⅞", diam. 2". Tolerance ±10%

Cap. mmf.	CRL Cat. No.	Temp. Coef.
50	859S-50Z	NPO
100	859S-100Z	NPO
250	859S-250N	N750
500	859S-500N	N2200

Type 859S ..... Net Each $44.10

Type 851 ceramic capacitors are high voltage units, held to ±10% tolerance. Size 1-9/32" diam. x 1-15/32". End terminal plates are center tapped 10-32. 851-200N 7500 V.D.C.W. — All others 15000 V.D.C.W.

Cap. mmf.	CRL Cat. No.	Temp. Coef.
25	851-25Z	NPO
50	851-50Z	NPO
100	851-100N	N750
200	851-200N	N750

Type 851 ..... Net Each $5.88

TYPES 850-858 5KV AND 7.5KV

Tolerance, ±10%. Dimensions, 13/16" diameter, ⅝" long. Mounting—S Series: ⅛" hex studs tapped 6-32 thd. SL Series: 17/32" solder lugs with 6-32 tapped hole.

Cap. mmf.	VDCW	Temp. Coef.	Cat. No Studs	Cat. No. Lugs
25	7500	NPO	850S-25Z	850SL-25Z
50	7500	NPO	850S-50Z	850SL-50Z
50	7500	N750	850S-50N	850SL-50N
75	7500	N750	850S-75N	850SL-75N
100	5000	N750	850S-100N	850SL-100N

Type 850 ..... Net Each $1.76

500	7500	Hi-K	858S-500
1000	7500	Hi-K	858S-1000

Type 858 ..... Net Each $1.76

SMALL HIGH VOLTAGE UNITS
TYPES 853-853A, 854-854A, 855-855A

The three series which follow are exceedingly compact ceramic capacitors. 5000 V.D.C.W. Mounting is with axial screw type terminals tapped 2-56. Tolerance ±10%. Sizes: 853, ⅛" diam. x ½" 854, ¼" diam. x ¾". 855, ½" diam. x ⅝". Types 853, 854 and 855 also available with axial leads, 1½" long, in place of screw terminals. For lead types, use same Cat Nos., omitting "A". Same price.

Cap. mmf.	Cat. No.	Temp. Coef.	Cap. mmf.	Cat. No.	Temp. Coef.
10	853A-10Z	NPO	3	855A-3Z	NPO
20	853A-20Z	NPO	5	855A-5Z	NPO
20	853A-20N	N750	10	855A-10N	N750
40	853A-40N	N750			

Type 853 ..... Net Each $1.76

TV-HI-VO KAPS

Factory guaranteed exact replacement. Accepted standard for filter and bypass applications in TV high voltage power supplies. Brass cadmium terminals available in combinations shown below. Capacity tolerance —20% —50%.

Voltage D.C.W.	Cap. mmf.	CRL Cat. No.	Voltage D.C. Test	Terminals	Net Ea.
10,000	500	TV1-501	20,000	2 Rod	$ .59
10,000	500	TV2-501	20,000	1 Slot, 1 Tap	.59
10,000	500	TV3-501	20,000	1 Tap, 1 Thread	.59
20,000	500	TV1-502	40,000	2 Rod	.88
20,000	500	TV2-502	40,000	1 Slot, 1 Tap	.88
20,000	500	TV3-502	40,000	1 Tap, 1 Thread	.88
20,000	500	TV4-502	40,000	2 Male Thread	.88
20,000	500	TV5-502	40,000	2 Female Tap	.88
20,000	500	TV7-502	40,000	1 8-32 thd., 1, 6-32 thd.	.88
30,000	500	TV1-503	48,000	2 Rod	1.76
30,000	500	TV8-503	48,000	2 Spec. 8-32 thd.	1.76

New ATTACHABLE TERMINAL HI-VO-KAP

Heavy threads prevent terminal breakage — 100% tested twice rated voltage.

TV-20 500 mmf. 20KVDC $.88 Net

TERMINALS —
Package of 5 (Min.) $ .30

	Net Ea.
KIT TV-207—1 TV-20, 7 asst. terminals	$1.09
KIT TVK-25—5 each of the 5 terminals	1.47
KIT TVK-125—25 each of the 5 terminals	6.76
KIT TVK-5-50—5 TV-20's, 10 each terminal	5.39

TX-1 Plain slotted rod
TX-2 6-32 Female Tap.
TX-3 6-32 Male Thd.
TX-4 Short 8-32 Male
TX-5 Long 8-32 Male

TYPE ZA & ZB—"ZIPPERS" BUTTON-STYLE CERAMICS

This solder-sealed "Button-type" ceramic capacitor is an accurate, dependable, long-life replacement for old style mica "Buttons" . . . Zippers. Packaged—Singly—Five envelopes per carton. 500 V.D.C.W., 1,000 V.D.C. Flash Test.

TYPE ZA TAPPED GROUND TERMINAL CRL Cap. mmf.	Cat. No.	Tolerance	TYPE ZB RIM TYPE FEED-THRU CRL Cap. mmf.	Cat. No.	Tolerance
10	ZA-100	±10%	10	ZB-100	±10%
15	ZA-150	±10%	15	ZB-150	±10%
25	ZA-250	±10%	25	ZB-250	±10%
33	ZA-330	±10%	33	ZB-330	±10%
50	ZA-500	±10%	50	ZB-500	±10%
75	ZA-750	±20%	75	ZB-750	±20%
100	ZA-101	±20%	100	ZB-101	±20%
150	ZA-151	±20%	150	ZB-151	±20%
200	ZA-201	±20%	200	ZB-201	±20%
250	ZA-251	±20%	250	ZB-251	±20%
300	ZA-301	±20%	300	ZB-301	±20%
400	ZA-401	±20%	400	ZB-401	±20%
500	ZA-501	±20%	500	ZB-501	±20%
600	ZA-601	±20%	600	ZB-601	±20%
750	ZA-751	±20%	750	ZB-751	±20%
1,000	ZA-102	GMV	1,000	ZB-102	GMV

Type ZA & ZB ..... Net Each $ .73

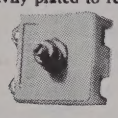
For prompt excellent service on all your CENTRALAB requirements, please call on SUN RADIO.

EL MENCO
PADDING CONDENSERS

EL-MENCO PADDING CONDENSERS have been acclaimed by engineers as the finest development in adjustable mica condensers.

The construction is such as to completely enclose and protect the delicate edges of the mica films, made of the finest quality clear India ruby mica.

The phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated to resist corrosion.



TYPE 30 AND TYPE 30-M PADDER 7/8" x 15/16"

TYPE 30
500 Volts DC Flash-Test — 250 WVDC

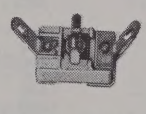
PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	At 2½ Turns Open Cap. Will Be Less Than MMF.	Net Ea.
302	2 Pl.	130	15	$ .35
303	3 Pl.	340	65	.38
304	4 Pl.	560	100	.44
305	5 Pl.	760	190	.50
306	6 Pl.	970	275	.53
307	7 Pl.	1180	350	.59
308	8 Pl.	1390	450	.62
309	9 Pl.	1600	550	.68
310	10 Pl.	1890	650	.73
311	11 Pl.	2110	780	.79
312	12 Pl.	2330	880	.82
313	13 Pl.	2605	1150	.88
314	14 Pl.	2830	1300	.94
315	15 Pl.	3055	1400	.97

Screw is insulated from top plate my mica washer. Above maximum capacity values are based on using 1½ to 1¾ Mil Mica films.

TYPE 30-M
1000 Volts DC Flash-Test — 500 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	At 2½ Turns Open Cap. Will Be Less Than MMF.	Net Ea.
302-M	2 Pl.	120	15	$ .35
303-M	3 Pl.	320	65	.38
304-M	4 Pl.	500	100	.47
305-M	5 Pl.	690	180	.50
306-M	6 Pl.	880	265	.53
307-M	7 Pl.	1070	340	.62
308-M	8 Pl.	1260	425	.65
309-M	9 Pl.	1415	525	.68
310-M	10 Pl.	1600	615	.73
311-M	11 Pl.	1785	730	.79
312-M	12 Pl.	1970	800	.85
313-M	13 Pl.	2155	1000	.88
314-M	14 Pl.	2340	1100	.94
315-M	15 Pl.	2525	1200	1.00

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 2 to 2¼ Mil Mica.



STANDARD TRIMMER ¾" x ⅝"

TYPE 46 —

NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF	Net Ea.
460	1¼ Pl.	15	1.5	$ .21
461	1¾ Pl.	30	2.7	.21
462	2 Pl.	80	5	.24
463	3 Pl.	180	9	.26
464	4 Pl.	280	25	.29
465	5 Pl.	380	50	.32
466	6 Pl.	480	80	.35
467	7 Pl.	580	110	.41
468	8 Pl.	680	140	.44
469	9 Pl.	780	170	.47

MIDGET TRIMMER ⅜" x ¾"

TYPE 42 —

NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	Net Ea.
420	1⅛ Pl.	12	1	$ .24
421	1¾ Pl.	26	2	.24
422	2 Pl.	40	4	.24
423	3 Pl.	100	7	.26
424	4 Pl.	150	14	.29
425	5 Pl.	200	24	.35
426	6 Pl.	250	37	.38
427	7 Pl.	300	55	.41
428	8 Pl.	350	70	.47
429	9 Pl.	400	90	.50

MINIATURE TRIMMER ⅜" x 9/16"

TYPE 40 —

NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	Net Ea.
400	1⅛ Pl.	7	0.9	$ .24
402	2 Pl.	20	1.5	.26
403	3 Pl.	35	3	.29
404	4 Pl.	60	8	.32

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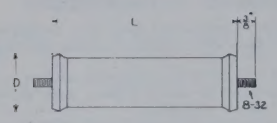
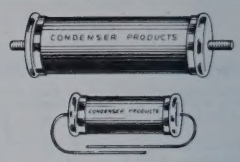
Sun Radio & ELECTRONICS CO. INC.

CONDENSER PRODUCTS

Type ASG Glassmike Plastic Capacitors





Type ASG are Plasticon A dielectric-silicone fluid impregnated capacitor elements in hermetically sealed glass tubes. Temperature range —60°C. to +85°C. Also available from —60°C. to +125°C. The smallest and lightest high voltage capacitors made. Type ASG are ideal for DC and low frequency AC applications. Tolerance: ±10%. Fungus-proof vacuum-tight assembly passes Signal Corps, Air Corps and Navy thermal cycle and immersion tests.

APPLICATIONS: Low current power supply filters; Television and oscilloscope circuits; Audio coupling and bypass; Electronic computers; Geiger counter circuits; Electrometer circuits; High temperature AC and DC circuits, etc.

PART NUMBER	CAPACITANCE MFD.	VOLTS D.C.	DIMENSIONS L ±1/16	DIMENSIONS D ±1/16	Net Ea.
ASG 103-6C	.01	600	1 3/16	19/32	$ .90
ASG 203-6C	.02	600	1 3/16	19/32	.96
ASG 503-6C	.05	600	1 3/16	19/32	1.05
ASG 104-6C	.1	600	1 3/4	3/4	1.17
ASG 254-6C	.25	600	2 1/4	29/32	1.35
ASG 504-6C	.5	600	2 3/4	29/32	1.56
ASG 502-1M	.005	1,000	1 3/16	19/32	.90
ASG 103-1M	.01	1,000	1 3/16	19/32	.96
ASG 203-1M	.02	1,000	1 3/16	19/32	1.02
ASG 503-1M	.05	1,000	1 3/4	3/4	1.11
ASG 104-1M	.1	1,000	2 1/4	3/4	1.29
ASG 254-1M	.25	1,000	2 3/4	29/32	1.50
ASG 202-2M	.002	2,000	1 3/16	19/32	1.14
ASG 502-2M	.005	2,000	1 3/16	19/32	1.23
ASG 103-2M	.01	2,000	1 3/16	19/32	1.35
ASG 203-2M	.02	2,000	1 3/16	19/32	1.50
ASG 503-2M	.05	2,000	1 3/4	3/4	1.68
ASG 104-2M	.1	2,000	2 1/4	3/4	1.92
ASG 254-2M	.25	2,000	2 3/4	29/32	2.22
ASG 102-3M	.001	3,000	1 3/16	19/32	3.09
ASG 202-3M	.002	3,000	1 3/16	19/32	3.15
ASG 502-3M	.005	3,000	1 3/16	19/32	3.24
ASG 103-3M	.01	3,000	1 3/16	19/32	3.36
ASG 203-3M	.02	3,000	1 3/4	3/4	3.51
ASG 503 3M	.05	3,000	2 1/4	29/32	3.69
ASG 104-3M	.1	3,000	2 1/4	1 1/8	3.90

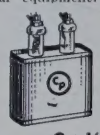
PART NUMBER	CAPACITANCE MFD.	VOLTS D.C.	DIMENSIONS L ±1/16	DIMENSIONS D ±1/16	Net Ea.
ASG 102-5M	.001	5,000	1 3/16	19/32	$3.90
ASG 202-5M	.002	5,000	1 3/16	19/32	4.02
ASG 502-5M	.005	5,000	1 3/8	19/32	4.17
ASG 103-5M	.01	5,000	1 3/4	3/4	4.35
ASG 203-5M	.02	5,000	2 1/4	3/4	4.59
ASG 503-5M	.05	5,000	2 1/4	29/32	4.89
ASG 104-5M	.1	5,000	3 1/2	1 3/8	5.46
ASG 102-8M	.001	8,000	1 3/16	19/32	4.20
ASG 202-8M	.002	8,000	1 3/16	19/32	4.35
ASG 502-8M	.005	8,000	1 3/4	3/4	4.53
ASG 103-8M	.01	8,000	2 1/4	3/4	4.89
ASG 203-8M	.02	8,000	2 3/4	29/32	5.55
ASG 503-8M	.05	8,000	2 3/4	1 3/8	6.90
ASG 501-10M	.0005	10,000	1 3/8	19/32	4.38
ASG 102-10M	.001	10,000	1 3/8	19/32	4.50
ASG 202-10M	.002	10,000	1 3/8	19/32	4.68
ASG 502-10M	.005	10,000	1 3/4	1 3/16	5.40
ASG 103-10M	.01	10,000	2 1/4	29/32	6.30
ASG 203-10M	.02	10,000	2 3/4	1 1/8	7.50
ASG 303-10M	.03	10,000	2 3/4	1 3/8	9.00
ASG 603-10M	.06	10,000	4 1/8	1 3/8	10.50
ASG 501-15M	.0005	15,000	2 1/4	19/32	8.70
ASG 102-15M	.001	15,000	2 1/4	3/4	8.88
ASG 202-15M	.002	15,000	2 1/4	3/4	9.30
ASG 501-20M	.0005	20,000	3 1/2	19/32	11.70
ASG 102-20M	.001	20,000	3 1/2	3/4	12.30
ASG 501-30M	.0005	30,000	4 3/16	19/32	13.50

CONDENSER PRODUCTS

Plasticon Type A DC Rectangular Capacitors

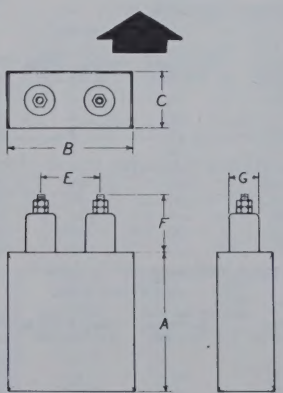
Mineral oil-filled in rectangular style CP70 cases. Designed for filter, coupling and bypass service in electronic, control and other similar equipment. Operating temperature range from —40°C. to +85°C. Standard tolerance is ±10%. Closer tolerances available at extra cost.

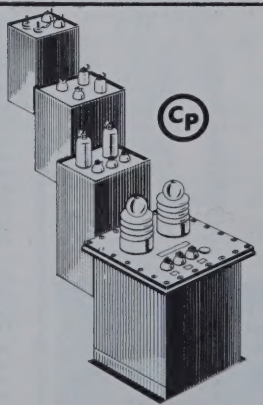
(Additional types available up to 40,000 DC W.V.)



PART NUMBER	CAPACITANCE MFD	VOLTS DC	CASE AND INSULATOR SIZE A +1/16 −1/8	B ±1/16**	C ±1/16**	E ±1/16	F ± 1/16	G ± 1/16	STUD THREAD	Net Ea.
AOC6C1	1	600	2 1/8	1 3/4	1	13/16	5/8	3/8	8-32	$2.69
AOC6C2	2	600	2 3/4	1 3/4	1	13/16	5/8	3/8	8-32	3.25
AOC6C4	4	600	3 1/2	2 1/2	1-3/16	1 1/8	5/8	3/8	8-32	4.04
AOC6C6	6	600	3 1/2	3 3/4	1 1/4	2	5/8	3/8	8-32	5.15
AOC6C8	8	600	4	3 3/4	1 1/4	2	5/8	3/8	8-32	6.10
AOC6C10	10	600	4	3 3/4	1 3/4	2	5/8	3/8	8-32	6.85
AOC1M05	0.5	1,000	2 1/8	1 3/4	1	13/16	3/4	3/8	8-32	2.69
AOC1M1	1	1,000	2 3/8	1 3/4	1	13/16	3/4	3/8	8-32	2.89
AOC1M2	2	1,000	3	2 1/2	1-3/16	1 1/8	3/4	3/8	8-32	3.88
AOC1M4	4	1,000	4 5/8	2 1/2	1-3/16	1 1/8	3/4	3/8	8-32	4.71
AOC1M6	6	1,000	4 5/8	3 3/4	1 3/4	2	3/4	3/8	8-32	6.06
AOC1M8	8	1,000	4 5/8	3 3/4	1 3/4	2	5/8	3/8	8-32	6.65
AOC1M10	10	1,000	4 5/8	3 3/4	2 1/4	2	5/8	3/8	8-32	7.48
AOC1M12	12	1,000	4	3 3/4	3-3/16	2	5/8	3/8	8-32	8.32
AOC2M01	0.1	2,000	2 1/8	1 3/4	1	13/16	3/4	3/8	8-32	3.09
AOC2M025	0.25	2,000	2 3/8	1 3/4	1	13/16	3/4	3/8	8-32	3.32
AOC2M05	0.5	2,000	2 3/4	1 3/4	1	13/16	3/4	3/8	8-32	3.49
AOC2M1	1.0	2,000	4 1/2	1 3/4	1	13/16	3/4	3/8	8-32	4.24
AOC2M2	2.0	2,000	3 1/4	3 3/4	1 1/4	2	3/4	3/8	8-32	4.91
AOC2M3	3	2,000	3 1/2	3 3/4	2 1/4	2	3/4	3/8	8-32	$5.94
AOC2M4	4	2,000	4 1/4	3 3/4	2 1/4	2	3/4	3/8	8-32	6.65
AOC2M5	5	2,000	5 1/4	3 3/4	2 1/4	2	3/4	3/8	8-32	7.68
AOC2M6	6	2,000	4 3/4	3 3/4	3-3/16	2	3/4	3/8	8-32	9.39
AOC2M8	8	2,000	5 3/4	3 3/4	3-3/16	2	3/4	3/8	8-32	11.56
AOC2M10	10	2,000	5 1/2	3 3/4	4-9/16	2	3/4	3/8	8-32	14.02
AOC2M12	12	2,000	6	3 3/4	4-9/16	2	3/4	3/8	8-32	15.52

****Tolerance ±1/8 inch for cases with base dimensions of 4 x 8 and 4 1/4 x 13 1/2.**





CONDENSER PRODUCTS

Plasticon Hi-Volt Power Supplies

Hermetically sealed oil-filled power supplies designed for Hi-Voltage low current DC applications. Case is neutral and may also be made either positive or negative. Variable output voltage is available when input voltage is supplied thru an auto transformer to assure flexibility.

Model No.	Output Voltage	Circuit	Case Size	Net Ea.
PS 2-2M60	2 KV DC*	Half Wave	3¾x3-3/16x5½ high	$29.70
PS 5-3M60	5 KV DC*	Half Wave	3¾x4-9/16x6 high	51.00
PS10-1M60	O-12 KV DC*	Full Wave Doubler	3¾x4-9/16x8 high	69.00
PS15-1M60	O-15 KV DC*	Full Wave Doubler	3¾x4-9/16x9 high	120.00
PS30-1M60	O-30 KV DC*	Full Wave Doubler	7x7x8¼ high	171.00
PS50-2M60	O-50 KV DC†	Tripler	12½x12½x12½ high	510.00

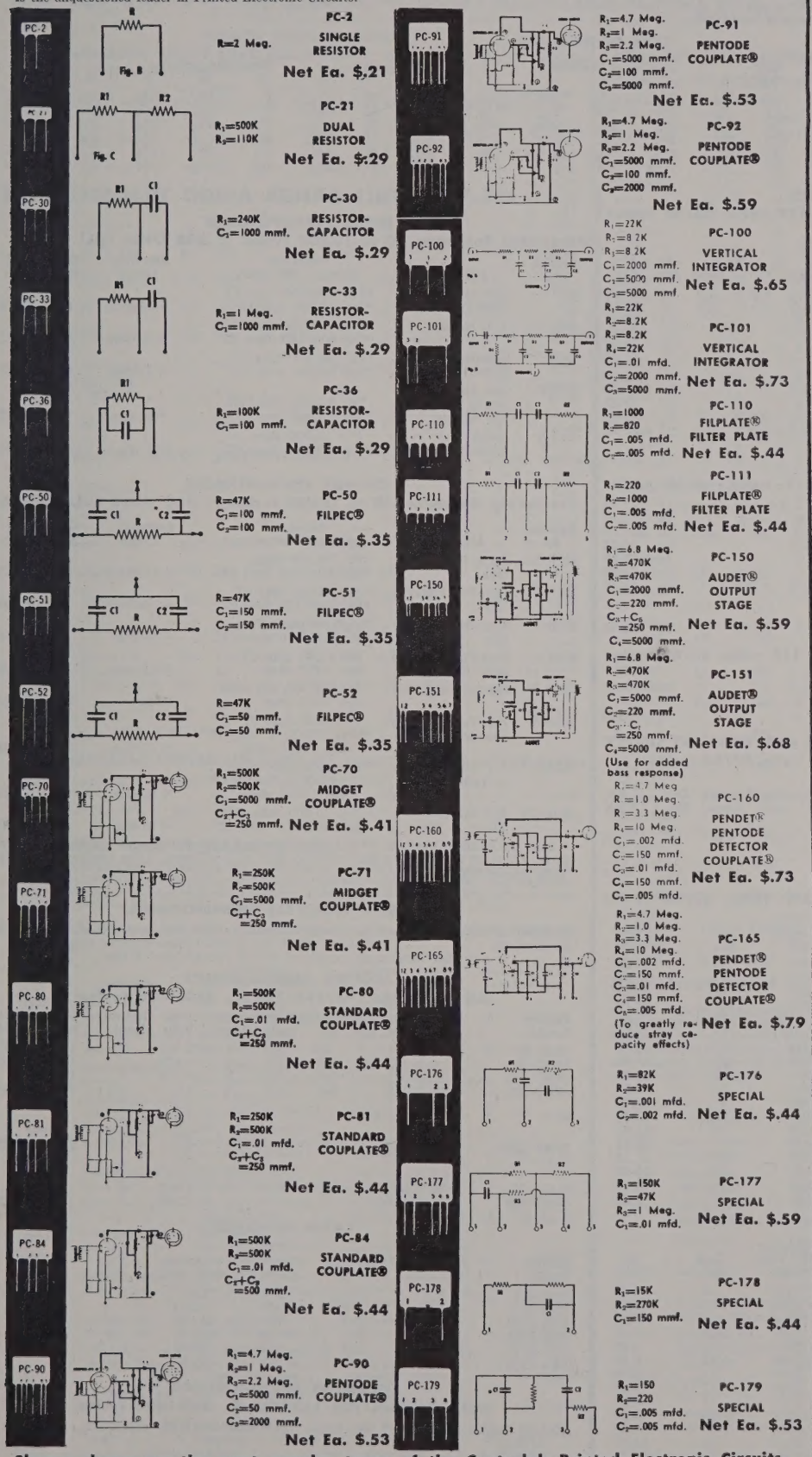
NOTES

*Case can be made either + or —.

†PS50 has a separate accessible compartment for the rectifier tubes.

CENTRALAB PRINTED ELECTRONIC CIRCUITS

Centralab Printed Electronic Circuits offer a combination of resistors and capacitors of ultra-compactness and permanence. No other modern development in electronic circuitry offers so many advantages in low-powered applications, such as small size, low assembly cost and utmost reliability. There are 45,000,000 P.E.C.'s now in use—proof positive that Centralab is the unquestioned leader in Printed Electronic Circuits.



PC-2 — R=2 Meg. — SINGLE RESISTOR — Net Ea. $.21

PC-21 — R_1=500K, R_2=110K — DUAL RESISTOR — Net Ea. $.29

PC-30 — R_1=240K, C_1=1000 mmf. — RESISTOR-CAPACITOR — Net Ea. $.29

PC-33 — R_1=1 Meg., C_1=1000 mmf. — RESISTOR-CAPACITOR — Net Ea. $.29

PC-36 — R_1=100K, C_1=100 mmf. — RESISTOR-CAPACITOR — Net Ea. $.29

PC-50 — R=47K, C_1=100 mmf., C_2=100 mmf. — FILPEC® — Net Ea. $.35

PC-51 — R=47K, C_1=150 mmf., C_2=150 mmf. — FILPEC® — Net Ea. $.35

PC-52 — R=47K, C_1=50 mmf., C_2=50 mmf. — FILPEC® — Net Ea. $.35

PC-70 — R_1=500K, R_2=500K, C_1=5000 mmf., C_2+C_3=250 mmf. — MIDGET COUPLATE® — Net Ea. $.41

PC-71 — R_1=250K, R_2=500K, C_1=5000 mmf., C_2+C_3=250 mmf. — MIDGET COUPLATE® — Net Ea. $.41

PC-80 — R_1=500K, R_2=500K, C_1=.01 mfd., C_2+C_3=250 mmf. — STANDARD COUPLATE® — Net Ea. $.44

PC-81 — R_1=250K, R_2=500K, C_1=.01 mfd., C_2+C_3=250 mmf. — STANDARD COUPLATE® — Net Ea. $.44

PC-84 — R_1=500K, R_2=500K, C_1=.01 mfd., C_2+C_3=500 mmf. — STANDARD COUPLATE® — Net Ea. $.44

PC-90 — R_1=4.7 Meg., R_2=1 Meg., R_3=2.2 Meg., C_1=5000 mmf., C_2=50 mmf., C_3=2000 mmf. — PENTODE COUPLATE® — Net Ea. $.53

PC-91 — R_1=4.7 Meg., R_2=1 Meg., R_3=2.2 Meg., C_1=5000 mmf., C_2=100 mmf., C_3=5000 mmf. — PENTODE COUPLATE® — Net Ea. $.53

PC-92 — R_1=4.7 Meg., R_2=1 Meg., R_3=2.2 Meg., C_1=5000 mmf., C_2=100 mmf., C_3=2000 mmf. — PENTODE COUPLATE® — Net Ea. $.59

PC-100 — R_1=22K, R_2=8.2K, R_3=8.2K, C_1=2000 mmf., C_2=5000 mmf., C_3=5000 mmf. — VERTICAL INTEGRATOR — Net Ea. $.65

PC-101 — R_1=22K, R_2=8.2K, R_3=8.2K, R_4=22K, C_1=.01 mfd., C_2=2000 mmf., C_3=5000 mmf. — VERTICAL INTEGRATOR — Net Ea. $.73

PC-110 — R_1=1000, R_2=820, C_1=.005 mfd., C_2=.005 mfd. — FILPLATE® FILTER PLATE — Net Ea. $.44

PC-111 — R_1=220, R_2=1000, C_1=.005 mfd., C_2=.005 mfd. — FILPLATE® FILTER PLATE — Net Ea. $.44

PC-150 — R_1=6.8 Meg., R_2=470K, R_3=470K, C_1=2000 mmf., C_2=220 mmf., C_3+C_5=250 mmf., C_4=5000 mmf. — AUDET® OUTPUT STAGE — Net Ea. $.59

PC-151 — R_1=6.8 Meg., R_2=470K, R_3=470K, C_1=5000 mmf., C_2=220 mmf., C_3+C_5=250 mmf., C_4=5000 mmf. (Use for added bass response) — AUDET® OUTPUT STAGE — Net Ea. $.68

PC-160 — R_1=4.7 Meg., R_2=1.0 Meg., R_3=3.3 Meg., R_4=10 Meg., C_1=.002 mfd., C_2=150 mmf., C_3=.01 mfd., C_4=150 mmf., C_5=.005 mfd. — PENDET® PENTODE DETECTOR COUPLATE® — Net Ea. $.73

PC-165 — R_1=4.7 Meg., R_2=1.0 Meg., R_3=3.3 Meg., R_4=10 Meg., C_1=.002 mfd., C_2=150 mmf., C_3=.01 mfd., C_4=150 mmf., C_5=.005 mfd. (To greatly reduce stray capacity effects) — PENDET® PENTODE DETECTOR COUPLATE® — Net Ea. $.79

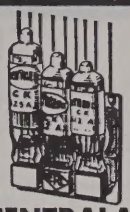
PC-176 — R_1=82K, R_2=39K, C_1=.001 mfd., C_2=.002 mfd. — SPECIAL — Net Ea. $.44

PC-177 — R_1=150K, R_2=47K, R_3=1 Meg., C_1=.01 mfd. — SPECIAL — Net Ea. $.59

PC-178 — R_1=15K, R_2=270K, C_1=150 mmf. — SPECIAL — Net Ea. $.44

PC-179 — R_1=150, R_2=220, C_1=.005 mfd., C_2=.005 mfd. — SPECIAL — Net Ea. $.53

Shown above are the most popular types of the Centralab Printed Electronic Circuits. SUN RADIO carries the complete line!



CENTRALAB

Ampec Printed Circuit Speech Amplifiers

SPECIFICATIONS

SIZE— 1¼" x 1⅛" x 3/16" over tube sockets.

LEADS— AWG No. 26 tinned copper wire. 1½" min. length.

BASE PLATE— Steatite Ceramic (JAN Grade L-5) non-porous, non-hygroscopic, unaffected by heat, humidity, or vibration.

CONDUCTIVE PATHS— Pure metallic silver fired on the steatite base plate . . . bonded by firing at high temperature to a tensile strength of 3000 psi.

COATING— Resistors and conductive paths protected by a coating of special phenolic resin plus high temperature wax impregnation.

RECOMMENDED COMPONENTS — (Not furnished with Ampec)

Control: Centralab Subminiature Model 1 Radiohm, ultra-small to match Ampec size, exceptionally quiet. Switch type, Cat. No. B16-228, Plain, Cat. No. B16-128.

Batteries: Miniature or Hearing aid, "A" — 1½ volt. "B" — 15 to 67½ volts.

Transformer: U.T.C. SO-4 or Stancor HA-201. Plate to line — U.T.C. SO-3.

Choke: U.T.C. SO-5 or Stancor HC-101.

CAPACITORS — Disc type, made of hard dense ceramic which will not puncture or become intermittant. Unaffected by humidity or vibration. Rating 150 V.D.C.W., 300 V.D.C. flash test.

RESISTORS — Screened and fired permanently to the ceramic base plate. Meet JAN specifications for humidity. Rated at ⅓ watt.

Midget Types

COMPONENT VALUES

RESISTORS			CAPACITORS		
R1	0.7 megs.	+20%	C1	.04 mfd.	+80% —20%
R2	2.2 megs.	+20%	C2	.005 mfd.	+80% —20%
R3	1.0 megs.	±20%	C3	.001 mfd.	±20%
R4	2.2 megs.	+20%	C4	.005 mfd.	+80% —20%
R5	1.0 megs.	±20%	C5	.001 mfd.	±20%
R6	4.7 megs.	+20%			
R7	1500Ω	±20%			

CAT. NO.	TYPE	DESCRIPTION
PC-200	Model 2	Complete three-stage amplifier with tube-sockets, less tubes.

PC200.....**$ 8.82 Net Ea.**

PC-201	Model 2	Same as PC-200 except complete with recommended sub-miniature tubes.

PC201.....**$14.70 Net Ea.**

Miniature Types

COMPONENT VALUES

RESISTORS			CAPACITORS		
R1	750KΩ	±20%	C1	.02 mfd.	+80% —20%
R2	3.3 megs.	±20%	C2	.004 mfd.	+80% —20%
R3	1.5 megs.	±20%	C3	.001 mfd.	±20%
R4	3.3 megs.	±20%	C4	.0002 mfd.	±20%
R5	1.5 megs.	±20%	C5	.004 mfd.	+80% —20%
R6	10 megs.	±20%	C6	.001 mfd.	±20%
R7	3000Ω	±20%			

CAT. NO.	TYPE	DESCRIPTION
PC-202	Model 3	Zero Bias output stage with tube sockets, less tubes.

PC202.....**$10.29 Net Ea.**

PC-203	Model 3	Same as PC-202 complete with 2 CK549DX, 1 CK547DX tubes.

PC203.....**$18.88 Net Ea.**

PC-204	Model 3	Grid Bias Output stage complete with tube sockets, less tubes.

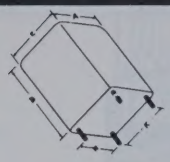
PC204.....**$10.29 Net Ea.**

PC-205	Model 3	Same as PC-204 complete with 2 CK549DX, 1 CK548DX tubes.

PC205.....**$19.70 Net Ea.**

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE



CHICAGO MIL-T-27 — HERMETICALLY-SEALED TRANSFORMERS AND REACTORS

CHICAGO hermetically-sealed transformers meet all requirements of Grade 1, MIL-T-27 specifications for Class A operation. Other units are listed for Class B operation. All units fully meet the rigid requirements for guided missile, military airborne and ground communications equipment, marine equipment, and in any field where a maximum of sealing and quality construction is important. They are especially useful in research and development applications, pilot runs, and pre-production models.

CASE DIMENSIONS

Case Size	Dimensions in Inches A	C	D	H	K	Stud Size
3	1 3/16	1 3/16	2	1 3/16-2 Studs		6-32
7	1 3/8	1 3/8	2	1 5/16-2 Studs		6-32
8	1 1/2	1 1/2	1 15/16	1	1	6-32
9	1 1/2	1 1/2	2 1/8	1	1	6-32
10	1 7/8	1 3/4	2 5/16	15/16	1 1/16	6-32
11	1 7/8	1 3/4	2 5/16	15/16	1 1/16	6-32
12	2 1/4	2—	2 11/16	1 5/16	1 3/8	6-32
13	2 1/8	2 1 5/16		1 5/16	1 3/8	6-32
14	2 1/2	2 3/8	3 1/16	1 13/16	1 11/16	6-32
15	2 1/2	2 3/8	3 5/16	1 13/16	1 11/16	6-32
16	2 7/8	2 11/16	3 1/2	2	1 7/8	8-32
17	2 7/8	2 11/16	3 3/4	2	1 7/8	8-32
18	3 1/4	3	3 7/8	2 3/8	2 1/8	8-32
19	3 1/4	3	4 1/4	2 3/8	2 1/8	8-32
20	3 11/16	3 5/16	4 5/16	2 5/8	2 3/8	10-32
21	3 11/16	3 5/16	4 11/16	2 5/8	2 3/8	10-32
22	4 5/16	4 1/8	5 5/16	3 3/8	3	10-32
24	5 5/16	4 13/16	6 1/16	3 3/8	3	12-24

POWER TRANSFORMERS

FOR CAPACITOR INPUT SYSTEMS—*Primary:* 117 volts, 50/60 cycles

Catalog No.	High Voltage Secondary A-C Volts	D-C Ma.	D-C Voltage Output	Rectifier Volts	Rectifier Amps	Filament No. 2 Volts	Filament No. 2 Amps	Filament No. 3 Volts	Filament No. 3 Amps	Case Size	Net Each
PHC-10	250-0-250	10	320			6.3	0.6	6.3	1.2	14	11.02
PHC-20	250-0-250	20	300			6.3	0.6	6.3	1.2	15	11.17
PHC-40	225-0-225	40	210	5	2	6.3CT	2			17	12.65
PHC-55	270-0-270	55	260	5	2	6.3CT	2			17	12.88
PHC-60	300-0-300	60	285	5	2	6.3CT	3			19	13.98
PHC-70	335-0-335	70	320	5	2	6.3CT	3			19	14.25
PHC-85	330-0-330	85	320	5	2	6.3CT	3			20	15.28
PHC-105	345-0-345	105	320	5	2	6.3CT	3.5			21	16.28
PHC-120	375-0-375	120	380	5	3	6.3CT	4			21	17.22
PHC-150	370-0-370	150	390	5	3	6.3CT	4	6.3CT	1	22	22.82
PHC-200	385-0-385	200	390	5	3	6.3CT	4.5	6.3CT	1	22	24.45
PHC-250	400-80-0 -80-400	250	410	5	6	6.3CT	7	5	2	24	26.80

FOR REACTOR INPUT SYSTEMS—*Primary:* 117 volts, 50/60 cycles

Catalog No.	High Voltage Secondary A-C Volts	D-C Ma.	D-C Voltage Output	Rectifier Volts	Rectifier Amps	Filament No. 2 Volts	Filament No. 2 Amps	Filament No. 3 Volts	Filament No. 3 Amps	Case Size	Net Each
PHR-55	350-0-350	55	260	5	2	6.3CT	2			17	12.73
PHR-70	425-0-425	70	320	5	2	6.3CT	3			19	13.78
PHR-85	440-0-440	85	325	5	2	6.3CT	3			20	14.79
PHR-105	450-0-450	105	320	5	2	6.3CT	3.5			21	16.28
PHR-120	500-0-500	120	390	5	3	6.3CT	4			21	17.22
PHR-150	510-0-510	150	395	5	3	6.3CT	4	6.3CT	1	22	21.28
PHR-200	520-0-520	200	390	5	3	6.3CT	4.5	6.3CT	1	22	22.40
PHR-300	550-370-75-0-75-370-550	300	420	5	6	6.3CT	5	6.3CT	1	24	30.66

FOR REGULATED POWER SUPPLIES—*Primary:* 115 volts, 50/60 cycles

Catalog No.	High Voltage Secondary A-C Volts	D-C Ma.	D-C Voltage Output	Rectifier Volts	Rectifier Amps	Filament No. 2 Volts	Filament No. 2 Amps	Filament No. 3 Volts	Filament No. 3 Amps	Case Size	Net Each
PHC-165	440-0-440	165	430	5	3	6.3 6.3	7.5 0.6	6.3 6.3	3 3	22	28.02
PHC-200A	450-0-450	200	442	5	2	6.3 6.3	4 4	6.3	0.6	22	25.20

BIAS TRANSFORMERS — COMBINATION PLATE AND FILAMENT SUPPLY

Primaries: 115 volts, 50/60 cycles; 230 volts, 50/60 cycles

Catalog No.	Primary Volts	High Voltage Secondary A-C Volts	D-C Ma.	Rectifier Volts	Filament Amps	Case Size	Net Each
1BH-150	115	180-160-140-120-0 -120-140-160-180	150	5.0	3.0	19	15.75
2BH-150	230	180-160-140-120-0 -120-140-160-180	150	5.0	3.0	19	15.42

FILAMENT TRANSFORMERS *Primary:* 115/230 volts, 50/60 cycles

Catalog No.	Secondary Volts	Secondary Amps	Insulation Test Volts RMS	Case Size	Net Each
FH-25	2.5CT	5.25	3500	15	9.08
FH-210	2.5CT	10.	5000	15	13.01
FH-210H	2.5CT	10.	9000	19	15.13
FH-215H	2.5CT	15.	9000	21	18.19
FH-54	5.0CT	4.	2500	15	9.47
FH-58	5.0CT	10.	2500	17	13.01
FH-510H	5.0CT	10.	8000	21	19.39
FH-516	5.0CT	20.	2500	21	18.81
FH-520HB	5.0CT	20.	10000	22	24.21
FH-530	5.0CT	30.	2500	22	24.21
FH-615	6.3CT	1.5	2500	12	6.91
FH-63	6.3CT	3.	2500	14	9.38
FH-65	6.3CT	5.5	2500	16	10.91
FH-610	6.3CT	10.	2500	19	15.42
FH-104	10.0CT	4.	2500	17	11.20
FH-106	10.0CT	6.5	2500	19	15.42
FH-1010	10.0CT	10.	2500	21	18.19
FH-1110	11.0CT	10.	2500	21	19.30

FILTER REACTORS

Catalog No.	Inductance Henries	Max. D-C Current, Ma.	D-C Resistance in Ohms	Insulation Test Volts RMS	Case Size	Net Each
RH-1510	15	10	680	1000	8	5.73
RH-1520	15	20	680	1000	8	6.06
RH-1540	15	40	475	2500	12	6.12
RH-1055	10	55	230	2500	13	6.32
RH-1555	15	55	420	2500	13	6.32
RH-1085	10	85	175	2500	14	6.70
RH-1585	15	85	285	2500	14	6.70
RH-8105	8	105	100	2500	17	7.85
RH-12105	12	105	170	2500	17	7.85
RH-8150	8	150	100	2500	18	9.00
RH-12150	12	150	150	2500	19	9.00
RH-8200	8	200	85	2500	20	10.58
RH-12200	12	200	140	2500	20	10.58
RH-8250	8	250	90	2500	22	12.76
RH-8300	8	300	60	3500	22	15.19

MIL-T-27 — FULL RANGE AUDIO TRANSFORMERS

INPUT TRANSFORMERS

Frequency Response, 30 to 15,000 cycles ± .5DB OVER FULL RANGE

Catalog No.	Application	Impedance Primary—Secondary	Operating Level§	Case Size	Net Each
BIH-2	Line to Single or Push-Pull Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	13	35.19
BIH-5	Line to Line	*Pri: 600/150 ohms CT *Sec. 600/150 ohms CT	+30 dbm.	18	36.42
BIH-6	Interstage—P-P Pl. to Sgl. or P-P Grids	*Pri: 20,000 ohms CT *Sec. 50,000 ohms CT	+15 dbm.	13	26.68
BIH-7	Low imped. mike, pickup, or multiple line to grid	Pri: 50/150/250/600 *Sec: 50,000 ohms CT	+15 dbm.	13	27.90
BIH-9	Single-Plate to Push-Pull Grids**	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	18	31.58

OUTPUT TRANSFORMERS

Frequency Response, 30 to 15,000 cycles ± .5DB OVER FULL RANGE

Catalog No.	Application	Impedance Primary—Secondary	Operating Level§	Case Size	Net Each
BOH-1	Single Plate to Line	†Pri: 15,000 ohms *Sec. 600/150 ohms CT	+15 dbm.	14	15.75
BOH-2	Push-Pull Plates to Line	*Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+30 dbm.	16	23.00
BOH-4	Push-Pull Plates to Line	Pri: 7,500 ohms CT *Sec. 600/150 ohms CT‡	+43 dbm.	20	21.76
BOH-6	Push-Pull Plates to Voice Coil	Pri: 7,500 ohms CT Sec: 8/20 ohms ‡	+43 dbm.	20	27.90
BOH-7	Line to Voice Coil	*Pri: 600 CT/150 ohms Sec: 8/20 ohms	45 dbm.	20	26.28
BOH-8	P-P Parallel Pl. to Line or Voice Coil	Pri: 1500 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+45 dbm.	21	36.42
BOH-9	P-P Plates to Line or Voice Coil	*Pri: 5000/3000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+42 dbm.	20	26.28
BOH-10	P-P Low Level Plates to Line	Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+15 dbm.	13	25.46

* Split and balanced windings. ** Has D-C in primary; frequency response ±2db, 30–15,000 cycle. † 0 to 10 ma. D-C. § 0 dbm. reference level = 1 milliwatt. ‡ Has tertiary winding for 15% inverse feedback.

MIL-T-27 — 400-CYCLE TRANSFORMERS

CHICAGO 400 cycle transformers are rugged, compact units that meet MIL-T-27: Class B specifications.

High Temperature Operation, 85° C ambient, 40° C rise

POWER TRANSFORMERS

(All primaries 105/115/125 V., 380-1000 cycles)

Catalog Number	High Voltage Secondary A.C. Volts	D.C. Ma.	Rectifier Volts	Rectifier Amps	Other Filaments Volts	Other Filaments Amps.	Case Size	Net Each
4PHC-55	270-0-270	55	5.0	2	6.3CT	2	12	12.79
4PHC-70	335-0-335	70	5.0	2	6.3CT	3	13	13.95
4PHC-120	375-0-375	120	5.0	3	6.3CT	4	17	
4PHC-165	440-0-440	165	5.0	3	6.3	7.5	20	16.89
					6.3	3		
					6.3	3		
					6.3	0.6		
4PHC-200A	450-0-450	200	5.0	2	6.3	4	20	24.55
					6.3	4		
					6.3	0.6		
4PHR-300	550-370-75-0 75-370-550	300	5.0	6	6.3CT	5	20	26.28
					6.3CT	1		

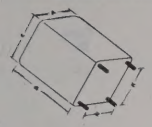
FILTER REACTORS

Catalog Number	Inductance (henries)	Maximum D.C. Ma.	D.C. Resistance (ohms)	Insulation Volts RMS	Case Size	Net Each
4RH-255	2.0	55	160	2,500	3	6.47
4RH-270	2.0	70	240	2,500	7	6.76
4RH-2120	2.0	120	105	2,500	11	7.06
4RH-2165	2.0	165	80	2,500	12	7.64
4RH-2200	2.0	200	77	2,500	13	7.94
4RH-2300	2.0	300	49	2,500	16	

FILAMENT TRANSFORMERS

(All primaries 105/115/125 V., 380-1000 cycles)

Catalog Number	Sec. Volts	Sec. Amps.	Insulation Volts RMS	Case Size	Net Each
4FH-63	6.3CT	3	2,500	10	7.94
4FH-65	6.3CT	5.5	2,500	11	10.88
4FH-610	6.3CT	10	2,500	13	13.81
4FH-620	6.3CT	20	2,500	15	17.34



CHICAGO NEW EQUIPMENT TRANSFORMERS

Available in three construction styles.
"S" TYPE—Flange-mounted unit with steel base cover fitted with phenolic terminal board and numbered solder lug terminals.
"C" TYPE—Flange-mounted unit with 10" color-coded leads brought out through fibre board cover.
"B" TYPE—Stud-mounted unit with steel base cover soldered into case. Phenolic terminal board with solid steel pin-type terminals.

POWER TRANSFORMERS

FOR CAPACITOR INPUT SYSTEMS—*Primary:* 117 volts, 50/60 cycles

Catalog No.	High Voltage Secondary A-C Volts	D-C Ma.	D-C V. Output	Rectifier Filaments Volts	Amps	No. 2 Volts	Amps	No. 3 Volts	Amps	Mounting Type	Size	Net Ea.
PCC-40										C	16	$5.00
PSC-40	225-0-225	40	210	5	2	6.3CT	2			S	17	8.67
PCC-55										C	16	5.38
PSC-55	270-0-270	55	260	5	2	6.3CT	2			S	17	9.12
PCC-60										C	18	6.17
PSC-60	300-0-300	60	285	5	2	6.3CT	3			S	19	9.70
PCC-70										C	18	6.61
PSC-70	335-0-335	70	320	5	2	6.3CT	3			S	19	10.29
PCC-85										C	20	7.64
PSC-85	330-0-330	85	320	5	2	6.3CT	3			S	20	10.87
PCC-105										C	20	8.29
PSC-105	345-0-345	105	320	5	2	6.3CT	3.5			S	21	11.61
PCC-120										C	22	9.32
PSC-120	375-0-375	120	380	5	3	6.3CT	4			S	22	12.23
PCC-150										C	22	10.67
PSC-150	370-0-370	150	390	5	3	6.3CT	4	6.3CT	1	S	22	16.16
PCC-200										C	22	12.44
PSC-200	385-0-385	200	390	5	3	6.3CT	4.5	6.3CT	1	S	22	17.17
PCC-250	400-80-0									C	24	15.31
PSC-250	-80-400	250	410	5	6	6.3CT	7	5.0	2	S	24	21.48
PCC-300								6.3	3	C	24	18.51
PSC-300	625-0-625	300	685	5	4	6.3CT	8	6.3	3	S	24	30.46

FOR REACTOR INPUT SYSTEMS—*Primary:* 117 volts, 50/60 cycles

PCR-55										C	16	5.59
PSR-55	350-0-350	55	260	5	2	6.3CT	2			S	17	9.26
PCR-70										C	18	6.32
PSR-70	425-0-425	70	320	5	2	6.3CT	3			S	19	10.14
PCR-85										C	20	7.35
PSR-85	440-0-440	85	325	5	2	6.3CT	3			S	20	11.17
PCR-105										C	20	7.85
PSR-105	450-0-450	105	320	5	2	6.3CT	3.5			S	21	11.88
PCR-120										C	22	8.29
PSR-120	500-0-500	120	390	5	3	6.3CT	4			S	22	12.49
PCR-150										C	22	10.29
PSR-150	510-0-510	150	395	5	3	6.3CT	4	6.3CT	1	S	22	17.34
PCR-200										C	22	11.46
PSR-200	520-0-520	200	390	5	3	6.3CT	4.5	6.3CT	1	S	22	18.52
PCR-300	550-370-75-0									C	24	17.92
PSR-300	-75-370-550	300	420	5	6	6.3CT	5	6.3CT	1	S	24	26.16
*PCR-300A										C	24	18.25
*PSR-300A	480-0-480	300	380	5	6	6.3CT	10			S	24	22.48

*Primary 115/230 volts, 50/60 cycles.

FOR REGULATED POWER SUPPLIES—*Primary:* 115 volts, 50/60 cycles

PSC-165	440-0-440	165	430	5	3	6.3	7.5	6.3	3			
						6.3	0.6	6.3	3	S	22	23.37
PSC-205	450-0-450	200	442	5	2	6.3	4	6.3	0.6			
						6.3	4			S	22	22.05

FULL RANGE OUTPUT TRANSFORMERS

For uniformly excellent response over the full frequency range, for very low percentage of distortion at all frequencies, and for high grade construction throughout, CHICAGO FF Range output transformers are unsurpassed. Typical frequency response is within 0.5 db from 30 to 20,000 cycles, although maximum deviation from 0 for the respective units varies from 0.2 db to about 1.5 db.

Output impedance ratings match perfectly with those recommended as standard by RMA and used by many leading manufacturers of high fidelity speakers.

Catalog No.	Application	Impedances Primary—Secondary	Operating Level§	Output Tubes	Mounting Type	Size	Net Ea.
BO-1	Single plate to Line	†Pri: 15,000 ohms *Sec: 600/150 ohms CT	+15 dbm. (22 mw)	6C4's to equiv.	B	14	$9.97
BO-2	Push-Pull Plates to Line	*Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+30 dbm. (1 watt)	6C5's or equiv.	B	16	13.22
BO-3	Push-Pull Plates to Line	Pri: 5,000 ohms CT *Sec: 600/150 ohms CT	+40 dbm. (10 watts)	6B4G's or equiv.	B	20	13.01
BO-4	Push-Pull Plates to Line	Pri: 7,500 ohms CT *Sec: 600/150 ohms CT ‡	+43 dbm. (20 watts)	6L6's or equiv.	B	20	13.82
BO-5	P-P Plates to Line or Voice Coil	*Pri: 10,000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+37 dbm. (5 watts)	6V6's or equiv.	B	18	15.88
BO-6	Push-Pull Plates to Voice Coil	Pri: 7,500 ohms CT Sec: 8/20 ohms ‡	+43 dbm. (20 watts)	6L6's or equiv.	B	20	17.19
BO-7	Line to Voice Coil	*Pri: 600 CT/150 ohms Sec: 8/20 ohms	+45 dbm. (30 watts)		B	20	13.69
BO-8	P-P Parallel Pl. to Line or Voice Coil	Pri: 1500 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+45 dbm. (30 watts)	6B4G's or equiv.	B	21	18.10
BO-9	P-P Plates to Line or Voice Coil	*Pri: 5000/3000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+42 dbm. (15 watts)	6B4G's or equiv.	B	20	16.89
BO-10	P-P Low Level Plates to Line	Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+15 dbm. (22 mw)	6C5's or equiv.	B	13	16.16
BO-11	P-P Plates to Line or Voice Coil	*Pri: 3000/2500 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+46 dbm. (40 watts)	3C33, 807's, WE300's 6AR6's	B	22	24.33
BO-12	P-P Plates to Line or Voice Coil	Pri: 10,000 ohms CT Sec: 600/16/8 ohms	+40 dbm. (10 watts)	807's	B	22	17.48
BO-13	P-P Plates to Voice Coil	§Pri: 10,000 ohms Sec: 4/8/16 ohms	+43 dbm. (20 watts)	5881's, 807's	B	21	17.48

‡Has tertiary winding for 15% inverse feedback. §Has screen grid taps for extended power.
* Split and balanced windings. † 0 to 10 ma. D-C. § 0 dbm. reference level = 1 milliwatt.

FILAMENT TRANSFORMERS

Primary: 115/230 volts, 50/60 cycles

Catalog No.	Secondary Volts	Amps.	Insulation Volts RMS	Mounting Type	Size	Net Ea.
F-25	2.5 CT	5.25	3500	S	14	$6.20
F-210	2.5 CT	10.	5000	S	17	8.91
F-210H	2.5 CT	10.	9000	S	19	10.44
F-215H	2.5 CT	15.	9000	S	20	12.47
F-54	5.0 CT	4.0	2500	S	15	6.38
F-58	5.0 CT	10.	2500	S	17	10.88
F-510H	5.0 CT	10.	10000	S	21	13.22
F-516	5.0 CT	20.	2500	S	21	12.85
F-520HB	5.0 CT	20.	10000	S	22	16.60
F-530	5.0 CT	30.	2500	S	22	16.60
F-615	6.3 CT	1.5	2500	S	12	3.67
F-63	6.3 CT	3	2500	S	14	6.18
F-65	6.3 CT	5.5	2500	S	17	7.50
F-610	6.3 CT	10.	2500	S	19	9.58
F-75	7.5 CT	5.0	2500	S	17	7.20
F-712	7.5 CT	12.	2500	S	21	12.49
F-725	7.5 CT	25.	2500	S	22	16.60
F-104	10 CT	4.0	2500	S	17	8.23
F-106	10 CT	6.5	2500	S	19	11.46
F-1010	10 CT	10.	2500	S	21	14.40
F-1110	11 CT	10.	2500	S	22	13.82

C-TYPE

With 10" color-coded leads brought out through fibre board base cover. Lead ends stripped and tinned. Flanged-mounted unit.

FILTER REACTORS

Catalog No.	Inductance, Henries	Max. D-C Current, Ma.	D-C Resistance in Ohms	Insulation Test Volts RMS	Mounting Type	Size	Net Ea.
RC-1540					C	12	$2.50
RS-1540	15	40	475	2500	S	12	3.53
RC-1055					C	12	2.97
RS-1055	10	55	230	2500	S	13	3.91
RC-1555					C	12	3.06
RS-1555	15	55	420	2500	S	13	4.12
RC-1085					C	14	3.44
RS-1085	10	85	175	2500	S	15	4.12
RC-1585					C	14	3.70
RS-1585	15	85	285	2500	S	15	4.97
RC-8105					C	16	4.12
RS-8105	8	105	100	2500	S	17	5.58
RC-12105					C	16	4.32
RS-12105	12	105	170	2500	S	17	5.58
RC-8150					C	18	5.67
RS-8150	8	150	100	2500	S	19	6.41
RC-12150					C	18	5.73
RS-12150	12	150	150	2500	S	19	6.67
RC-8200					C	20	6.67
RS-8200	8	200	85	2500	S	21	7.64
RC-12200					C	20	6.76
RS-12200	12	200	140	2500	S	21	8.08
RC-8250					C	22	7.59
RS-8250	8	250	90	2500	S	22	9.26
RC-8300					C	22	9.35
RS-8300	8	300	60	3500	S	22	11.61

S-TYPE

Steel base cover fitted with phenolic terminal board. Convenient numbered solder lug terminals. Flange-mounted unit.

B-TYPE

Steel base cover soldered into case. Phenolic terminal board with solid steel pin-type terminals. Unit has mounting studs.

FULL RANGE INPUT TRANSFORMERS

CHICAGO Full Frequency Range Input Transformers provide a response within 0.5 db from 20 to 20,000 cycles. The percentage of distortion is exceptionally low over the full range—at low as well as high frequencies.

All units have hum-bucking coil and core construction to provide maximum neutralization of stray magnetic fields. Internal cases and covers of special alloy give hum shielding of —70 dbm or better.

Catalog No.	Application	Impedances Primary—Secondary	Operating Level§	Hum Reduction	Mounting Type	Size	Net Ea.
BI-1	Line to Single or Push-Pull Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	--70 dbm.	B	13	16.89
BI-2	Line to Single or Push-Pull Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	—90 dbm.	B	13	21.61
BI-3	Line bridging to Push-Pull Grids	*Pri: 8000/6000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	17.60
BI-4	Line to Line	Pri: 600/150 ohms CT Sec: 600/150 ohms CT	+15 dbm.	—70 dbm.	B	13	17.34
BI-5	Line to Line	*Pri: 600/150 ohms CT *Sec: 600/150 ohms CT	+30 dbm.	—90 dbm.	B	18	22.97
BI-6	Interstage—P-P Pl. to Sgl. or P-P Grids	*Pri: 20,000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	16.89
BI-7	Low imped. mike, pickup, or multiple line to grid	Pri: 50/150/250/600 *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	17.60
† BI-8	Single Plate to Push-Pull Grids	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	16.89
† BI-9	Single Plate to Push-Pull Grids**	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	18	11.38

*Split and balanced windings. **Has D-C in primary; frequency response ±2db, 30—15,000 cycles.
§ 0 dbm. reference level — 1 milliwatt.

LS-1

LS-2

LS-3

LS-6

U.T.C. LINEAR STANDARD TRANSFORMERS

U.T.C. LS Series Transformers feature low wave form distortion, high efficiency, thorough shielding, dependability and guaranteed uniform response ± 1 db from 20 to 20,000 cycles. Minimum hum pick-up is accomplished by special coil structure and high conductivity outer case for maximum shielding. Units whose code numbers end in "X" employ multiple alloy shielding, making possible a transformer with extremely low inductive pick-up.

CASE DIMENSIONS

Case Type	Height	Width	Length
LS-1	3¼"	2⅝"	3⅛"
LS-2	4¾"	3½"	4⅞"
LS-3	4¹¹⁄₁₆"	5"	5¹³⁄₁₆"
LS-6	24"	13"	15¾"

Low Impedance To Grid Transformers

Type No.	Application	Primary Impedance	Secondary Impedance	± 1 db from	Case No.	Net Ea.
LS-10	Low impedance mike, pickup, or multiple line to grid	50, 125/150, 200, 250, 333, 500/600 ohms	60,000 ohms in two sections	20-20,000	LS-1	$14.70
LS-10X	As above	As above	50,000 ohms	20-20,000	LS-1	18.62
LS-12	Low impedance mike, pickup or multiple line to push pull grids	50, 125/150, 200, 250, 333, 500/600 ohms	120,000 ohms overall, in two sections	20-20,000	LS-1	16.60
LS-12X	As above	As above	80,000 ohms overall, split	20-20,000	LS-1	19.60
LS-14	Low impedance mike, pickup, or parallel mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms	60,000 ohms in two sections	20-20,000	LS-1	17.64
LS-14X	As above	As above	50,000 ohms	20-20,000	LS-1	19.60
LS-15X	Three isolated lines or pads to one or two grids	30, 50, 200, 250 ohms each primary	60,000 ohms overall, in two sections	20-20,000	LS-1	19.60
LS-18	High level multiple line to push pull grids	50, 125/150, 200, 250, 333, 500/600 ohms	50,000 ohms overall, in two sections	20-20,000	LS-2	15.68
LS-26	Bridging line to single or push pull grids	5,000 ohms	60,000 ohms in two sections	15-20,000	LS-1	17.64

Mixing Transformers

Type No.	Application	Primary Impedance	Secondary Impedance	± 1 db from	Case No.	Net Ea.
LS-30	Mixing, low impedance mike, pickup, or multiple line to multiple line	50, 125/150, 200, 250, 333, 500/600 ohms	50, 125/150, 200, 250, 333, 500/600 ohms	7-50,000	LS-1	$15.68
LS-30X	As above	As above	As above	20-20,000	LS-1	18.62
LS-31	Three isolated lines or pads to multiple line	30, 50, 200, 250 ohms each primary	50, 125/150, 200, 250, 333, 500/600 ohms	20-20,000	LS-1	17.64
LS-31X	As above	As above	As above	20-20,000	LS-1	21.50
LS-32	Mixing, low impedance mike, pickup or parallel mixer to multiple line	2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms	50, 125/150, 200, 250, 333, 500/600 ohms	20-20,000	LS-1	21.56

Interstage Audio Transformers

Type No.	Application	Primary Impedance	Secondary Impedance	± 1 db from	Case No.	Net Ea.
LS-19	Single plate to push pull grids like 2A3, 6L6, 5881 Split secondary	15,000 ohms	95,000 ohms 1.25:1 each side	20-20,000	LS-1	$15.68
LS-20	Single plate to single grid	15,000 ohms	60,000 ohms; 2:1 turn ratio	20-20,000	LS-1	16.66
LS-21	Single plate to push pull grids. Split pri. and sec.	15,000 ohms	135,000 ohms; 3:1 overall	10-20,000	LS-1	14.70
LS-40	Single plate to push pull grids. Split secondary	15,000 ohms	135,000 ohms; 3:1 overall	30-20,000	LS-1	17.64
LS-22	Push pull plates to push pull grids. Split primary and secondary	30,000 ohms plate to plate	80,000 ohms; turn ratio 1.6:1 overall	20-20,000	LS-2	21.56
LS-25	Push pull plates to push pull grids. Medium level. Split primary and sec.	30,000 ohms plate to plate	50,000 ohms; turn ratio 1.3:1 overall	20-20,000	LS-1	18.62
LS-26	Bridging line to 1 or 2 grids	5000 ohms	60,000 in two sections	15-20,000	LS-1	17.64

Plate, Crystal, Photocell and Bridging To Line Transformers

Type No.	Application	Primary Impedance	Secondary Impedance	± 1 db from	Case No.	Net Ea.
LS-27	Single plate to multiple line	15,000 ohms	50, 125/150, 200, 250, 333, 500/600	30-15,000 cycles	LS-1	$17.64
LS-50	Single plate to multiple line	15,000 ohms	50, 125/150, 200, 250, 333, 500/600	10-40,000	LS-1	15.19
LS-51	Push pull low level plates to multiple line	30,000 ohms plate to plate	50, 125/150, 200, 250, 333, 500/600	10-40,000	LS-1	18.62
LS-38	Crystal microphone or pickup to multiple line, with internal equalizer	100,000 ohms	50, 125/150, 200, 250, 333, 500/600	Equalized for crystal	LS-1	19.60
LS-39	Photocell, high-mu triode, diode or overbiased detector to multiple line	100,000 ohms	50, 125/150, 200, 250, 333, 500/600	20-20,000	LS-1	17.64
LS-150	Bridging from 50 to 500 ohm line to line	4,000 ohms, bridging	50, 125/150, 200, 250, 333, 500/600	7-50,000	LS-1	17.64
LS-151	Bridging from 50 to 500 ohm line to line	16,000 ohms, bridging	50, 125/150, 200, 250, 333, 500/600	7-50,000	LS-1	15.68

Hybrid and Repeat Coils

Type No.	Application	Pri. and Sec. Impedances	± 1 db from	Case No.	Net Ea.
LS-140	Line to line for isolating balanced and unbalanced circuits; balanced for maximum reduction cross talk (70 DB)	500/600 ohms split 500/600 ohms split	30-20,000	LS-1	$19.60
LS-141	Three sets of balanced windings for hybrid service. centertapped	500/600 ohms 500/600 ohms	30-15,000	LS-1	17.64
LS-142	Line to line and to push pull grids for hybrid service	500/600 ohms 500/600 ohms 60,000 ohms	30-15,000	LS-1	17.64
LS-143	High efficiency ring and talk repeat coil, for low frequency ringing	500/600 ohms 500/600 ohms	Efficient 15/12,000 cycles	LS-2	14.70

Driver Transformers

Type No.	Application	Primary Impedance	Refl. Sec. Impedance	± 1 db from	Case No.	Net Ea.
LS-5	Driver, multiple line to class B 838's, 805's, ZB-120's, 203A's and similar tubes	50, 125, 200, 250, 333, 500/600 ohms	2,000 ohms; 1:2 overall turns ratio	20-20,000	LS-2	$24.50
LS-6	Driver, push pull 2A3's, etc., to push pull 845 or 211D grids	5,000 ohms plate to plate	2:25 primary impedance; turns ratio 1.5:1 overall	20-20,000	LS-2	19.60
LS-7	Push pull 6C5, 6SN7, or similar plates to A 2A3's, 6L6's, 5881's	30,000 ohms plate to plate	.45 primary impedance turn ratio 1.5:1 Pri to Sec.	20-20,000	LS-2	19.60
LS-47	Driver from push pull 2A3's, or similar to class B 838's, 203A's, 805's, or ZB120's	5,000 ohms plate to plate	.1 pri. impedance turns ratio, Pri./½ Sec. 3.2:1	20-20,000	LS-2	19.60
LS-48	Driver transformer push pull 845's to 204 or 849 grids in class B	12,000 ohms plate to plate	.038 pri. impedance turns ratio, Pri./½ Sec. 5.1:1	20-20,000	LS-3	39.20
LS-49	Push pull parallel 2A3, or similar tubes to four 838, 203A, 805, or ZB120 tubes	2,500 ohms plate to plate	Ratio Pri./½ Sec. 4:1 and 2.5:1	20-20,000	LS-3	39.20

Output Transformers To Line and Voice Coil

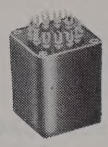
Type No.	Primary Impedance	Secondary Impedance	± 1 db from	Max. Level	Case No.	Net Ea.
LS-52	8,000 ohms	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	7-50,000	15 watts	LS-2	$18.62
LS-54	8,000 ohms	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	7-50,000	15 watts	LS-2	14.70
LS-55	5,000 ohms plate to plate and 3,000 ohms plate to plate	500, 333, 250 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	7-50,000	20 watts	LS-2	18.62
LS-57	5,000 ohms plate to plate and 3,000 ohms plate to plate	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	7-50,000	20 watts	LS-2	14.70
LS-58	2,500 ohms plate to plate and 1,500 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	10-50,000	40 watts	LS-3	37.24
LS-60A	4,600 ohms plate to plate	15, 10, 7.5, 5, 3.75, 2.5, 1.2	7-50,000	30 watts	LS-3	23.52
LS-62A	As above	500, 125	7-50,000	30 watts	LS-3	19.60
LS-61	10,000 ohms plate to plate and 6,000 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	7-50,000	15 watts	LS-2	18.62
LS-63	10,000 ohms plate to plate and 6,000 ohms plate to plate	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	7-50,000	15 watts	LS-2	14.70
LS-6L1	9,000 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	7-50,000	30 watts	LS-3	29.40
LS-6L3	9,000 ohms plate to plate and	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	7-50,000	30 watts	LS-3	19.60
LS-6L4	3,800 ohms plate 4,500 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	12-50,000	55 watts	LS-3	44.10

High Level Matching Transformers

Type No.	Primary Impedance	Secondary Impedance	± 1 db from	Max. Level	Case No.	Net Ea.
LS-33	50, 125, 200, 250, 333, 500/600 ohms	1.2, 2.5, 5, 7.5 10, 15, 20, 30, 50, 125, 200, 250, 333, 500/600	10-40,000	15 watts	LS-2	$17.64
LS-34	50, 125, 200, 250, 333, 500/600 ohms	1.2, 2.5, 5, 7.5 10, 15, 20, 30, 50, 125, 200, 250, 333, 500/600	10-40,000	30 watts	LS-3	26.46

Output Transformer To High Impedance (RF) Load

Type No.	Primary Impedance	Secondary Impedance	± 1 db from	Max. Level	Case No.	Net Ea.
LS-56	5,000 ohms plate to plate and 3,000 ohms plate to plate	6000, 5000, 4000, 1800, 1500, 1000, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	10-50,000	20 watts	LS-2	$19.60
LS-66	9,000 ohms plate to plate	5000, 4200, 4100, 3500, 3300, 2650, 2500, 2100, 1250, 600	10-50,000	260 watts	*	63.70
LS-691	10,400 ohms plate to plate	4500, 4000, 3500, 2750, 2000	20-40,000	1000 watts	LS-6	392.00
LS-692	4,750 ohms plate to plate	2500, 2000, 1750, 1500, 1250	20-40,000	2500 watts	LS-6	686.00



RCOF

RC-50

SM

ULTRA COMPACT AUDIO UNITS

Small 1½" long x 1½" wide x 2" high. Light; weigh only 8 ozs. Ideally suited to remote amplifier and similar compact equipment. True hum balancing coil structure (except units carrying DC) with high conductivity outer case, provides good inductive shielding. Maximum operating level +7 db. Die cast case provides for top or bottom mounting.

Low Impedance To Grid and Mixing Transformers

Type No.	Application	Primary Impedance	Secondary Impedance	± 2 db from	Net Ea.
A-10	Low impedance mike, pickup, or multiple line to grid	50, 125/150, 200/250, 333, 500/600 ohms	50,000 ohms	20-20,000	$10.78
A-11	Low impedance mike, pickup, or line to 1 or 2 grids	50, 200, 500	50,000 ohms	50-20,000 multiple alloy shield for extremely low hum pickup	9.80
A-12	Low impedance mike, pickup, or multiple line to push pull grids	50, 125/150, 200/250, 333, 500, 600 ohms	80,000 ohms overall, in two sections	20-20,000	10.78
A-14	Dynamic microphone to one or two grids	30 ohms	50,000 ohms overall, in two sections	20-20,000	9.80
A-20	Mixing, low impedance mike, pickup, or multiple line to multiple line	50, 125, 150, 200, 250, 333, 500, 600 ohms	50, 125, 150, 200, 250, 333, 500, 600 ohms	10-50,000	10.78
A-21	Mixing, low impedance mike, pickup, or line to line	50, 200, 250, 500, 600	50, 200, 250, 500, 600	30-30,000 multiple alloy shield for extremely low hum pickup	10.78

Interstage Audio Transformers

Type No.	Application	Primary Impedance	Secondary Impedance	± 2 db from	Net Ea.
A-16	Single plate to single grid	15,000 ohms	60,000 ohms, 2:1 turn ratio	20-20,000	$8.82
A-17	Single plate to single grid 8 MA unbalanced D.C.	As above	As above	40-20,000	9.80
A-18	Single plate to two grids. Split primary, can also be used for P.P. plates	15,000 ohms	80,000 ohms overall, 2.3:1 turn ratio overall	20-20,000	10.78
A-19	Single plate to two grids 8 MA unbalanced D.C.	15,000 ohms	80,000 ohms overall, 2.3:1 turn ratio overall	40-20,000	10.78

Plate and Crystal To Line Transformers

Type No.	Application	Primary Impedance	Secondary Impedance	± 2 db from	Net Ea.
A-24	Single plate to multiple line	15,000 ohms	50, 125, 150, 200, 250, 333, 500, 600 ohms	20-40,000	$10.78
A-25	Single plate to multiple line 8 MA unbalanced D.C.	15,000 ohms	50, 125, 150, 200, 250, 333, 500, 600 ohms	40-20,000	9.80
A-26	Push pull low level plates to multiple line	30,000 ohms plate to plate	50, 125, 150, 200, 250, 333, 500, 600 ohms	20-40,000	10.78
A-27	Crystal microphone to multiple line	100, 000 ohms	50, 125, 150, 200, 250, 333, 500, 600 ohms	30-20,000 measured with non-inductive source	10.78
A-30	Audio choke, 250 henrys @ 5 MA 6000 ohms D.C., 65 henrys @ 10 MA 1500 ohms D.C. 450 henrys @ 0 MA				7.84
A-32	Filter choke 60 henrys @ 15 MA 2000 ohms D.C., 15 henrys @ 30 MA 500 ohms D.C.				5.39

* 200 ohm termination can be used for 150 ohms or 250 ohms, 500 ohm termination can be used for 600 ohms.

** 200 ohm termination can be used for 150 ohms or 250 ohms, 125 500 ohm termination can be used for 150 600 ohms.

*** can be used with higher source impedances, with corresponding reduction in frequency range. With 200 ohm source, secondary impedance becomes 250,000 ohms . . . loaded response is −4 db. at 300 cycles.

**** Can be used for 500 ohm load . . . 25,000 ohm primary impedance . . . 1.5 Ma. DC.

0-1 — 0-15

0-16

OUNCER AUDIO UNITS

Ideal for portable broadcast, hearing aid, concealed service, aircraft and similar operations. Uniform response within approximately 1 db from 30 to 20,000 cycles; except for 0-14, 0-15 and units carrying DC, which are intended for voice frequencies. Compact design; units weigh only 1 oz. and are fully impregnated and sealed in a drawn aluminum housing, ⅞" dia. x 1-3/16" high (except type 0-16 which is 1-1/16" dia. x 1½" high).

OUNCER Type No.	Application	Pri. Imp.	Sec. Imp.	Net Ea.
0-1	Mike, pickup or line to 1 grid	50, 200/250, 500/600	50,000	$6.86
0-2	Mike, pickup or line to 2 grids	50, 200/250, 500/600	50,000	6.86
0-3	Dynamic mike to 1 grid	7.5/30	50,000	6.37
0-4	Single plate to 1 grid	15,000	60,000	5.88
0-5	Single plate to 1 grid, D.C. in Pri	15,000	60,000	5.88
0-6	Single plate to 2 grids	15,000	95,000	6.37
0-7	Single plate to 2 grids, D.C. in Pri.	15,000	95,000	6.37
0-8	Single plate to line	15,000	50, 200/250, 500/600	6.86
0-9	Single plate to line, D.C. in Pri.	15,000	50, 200/250, 500/600	7.35
0-10	Push pull plates to line	30,000 ohms plate to plate	50, 200, 250, 500, 600	6.86
0-11	Crystal mike or pick-up to line	50,000	50, 200/250, 500/600	7.35
0-12	Mixing and matching	50, 200 250	50, 200 250, 500/600	
0-13	Reactor, 300 Hys.—no D.C.;	50 Hys.—3 MA. D.C.,	6000 ohms	5.39
0-14	50:1 mike or line to 1 grid	200	½ megohm	6.86
0-15	10:1 single plate to 1 grid	15,000	1 megohm	6.86
0-16	Mike or line to grid	250 C.T.	50,000	8.82

This transformer provides very low hum pickup . . . employs two heavy gauge hipermalloy shields plus orientable mounting. Primary centertap is balanced to 1%. Can be used for 150, 200, 250, 500, or 600 ohm sources . . . 200:1 impedance ratio.

HERMETICALLY SEALED AUDIO COMPONENTS

The listed units conform to the latest military specifications. Frequency response range is based on military requirements. Actually, most units, except those carrying DC, are appreciably better in response. Terminals on all units employ glass bead headers, except Nos. H-20 and H-24 which are neoprene ceramic assemblies.

MIL TYPE No.	EQUIVALENT U.T.C. CAT. Nos.
TF1A10YY	H1, H9, H19 and H30
TF1A11YY	H2
TF1A13YY	H7, H22, H23, H32, H33 and H34
TF1A15YY	H3, H4, H5, H6, H10, H20, H21, H31 and H36
TF1A16YY	H8
TF1A20YY	H1, H24, H35

CASE SIZE AND WEIGHT

Type	Length x Width x Height	Weight
RCOF	1 25/64" x 61/64" x 1 13/32"	1.5 oz.
SM	11/16" x 1/2" x 29/32"	.8 oz.
RC-50	1⅝" x 1⅝" x 2 3/16"	8 oz.

Miniature Audio Units — RCOF Case

Type No.	Application	Pri. Imp. Ohms	Sec. Imp. Ohms	DC in Pri. MA	Response ± 2 db (Cyc.)	Net Ea.
H-1	Mike, pickup, line to grid	50, 200 CT, 500 CT*	50,000	0	50-10,000	$8.82
H-2	Mike to grid	82	135,000	50	250-8,000	9.31
H-3	Single plate to single grid	15,000	60,000	0	50-10,000	6.86
H-4	Single plate to single grid, DC in Pri.	15,000	60,000	4	200-10,000	6.86
H5	Single plate to P.P. grids	15,000	95,000 CT	0	50-10,000	7.33
H-6	Single plate to P.P. grids, DC in Pri.	15,000	95,000 split	4	200-10,000	9.31
H-7	Single or P.P. plates to line	20,000 CT	150/600	4	200-10,000	8.33
H-8	Mixing and matching	150/600	600 CT	0	50-10,000	8.33
H-9	82/41:1 input to grid	150/600	1 meg.	0	200-3,000 (4 db.)	8.33
H-10	10:1 single plate to single grid	10,000	1 meg.	0	200-3,000 (4 db.)	7.35
H-11	Reactor	300 Henries-0 DC. 50 Henries-3 Ma. DC, 6,000 Ohms.				6.37

Compact Audio Units — RC-50 Case

Type No.	Application	Pri. Imp. Ohms	Sec. Imp. Ohms	DC in Pri. MA	Response ± 2 db (Cyc.)	Net Ea.
H-19	Line to grid. Balanced, center tapped primary . . . 1:14 ratio. Multiple hi-permalloy (75 DB) shielding	250 CT 500 CT	50,000 100,000	0	30-20,000	$12.74
H-20	Single plate to 2 grids, can also be used for P.P. plates	15,000 split	80,000 split	0	30-20,000	11.76
H-21	Single plate to P.P. grids, DC in Pri.	15,000	80,000 split	8	100-20,000	13.72
H-22	Single plate to multiple line	15,000	50/200, 125/500**	8	50-20,000	12.25
H-23	P.P. plates to multiple line	30,000 split	50/200, 125/500**	8 BAL.	30-20,000	11.76
H-24	Reactor	450 Hys.-0 DC, 250 Hys.-5 Ma. DC, 6000 ohms 65 Hys.-10 Ma. DC, 1500 ohms				8.82

Subminiature Audio Units — SM Case

Type No	Application	Pri. Imp. Ohms	Sec. Imp. Ohms	DC in Pri. MA	Response ± 2 db (Cyc.)	Net Ea.
H-30	Input to grid	50***	62,500	0	150-10,000	$7.84
H-31	Single plate to single grid, 3:1	10,000	90,000	0	300-10,000	7.84
H-32	Single plate to line	10,000****	200	3	300-10,000	7.84
H-33	Single plate to low impedance	30,000	50	1	300-10,000	7.84
H-34	Single plate to low impedance	100,000	60	5	300-10,000	7.84
H-35	Reactor	100 Henries-0 DC. 50 Henries-1 Ma. DC, 4,400 ohms.				6.37
H-36	Transistor Interstage	25,000	1,000	.5	300-10,000	7.35

HERMETICALLY SEALED PULSE TRANSFORMERS

Stock pulse transformers to take care of most low level applications. Wide ranges of pulse duration, loading and level are obtainable by variations in the manner of connecting the balanced coil structure windings. An engineering sheet accompanies each unit, providing data for applications.

Type No.	Description	Pulse Width Microsec.	Ins. Test Volts RMS	Case	Net Ea.
H-40	Two 250 ohm windings . . . two 1000 ohm windings	.1 to 5	1000	RCOF	$11.76
H-41	Two 250 ohm windings . . . two 1000 ohm windings	.1 to 5	1000	RCOF	11.76
H-42	Three 250 ohm windings	.15 to .75	500	SM**	11.76
H-43	Three 500 ohm windings	.5 to 2	500	SM**	11.76

U.T.C. MICROPHONE CABLE TRANSFORMERS

UTC Cable transformers are designed to be inserted in the cable circuit, and are ruggedly constructed to withstand mechanical abuse. The cable connections (supplied less cable) are made through spring strain relief to terminal boards inside the end caps. 1½" diameter . . . 2½" long . . . ½ lb.

	Net Ea.
Type MC-1—primary tapped 30 50 and 200 250 ohms, secondary to grid, standard fidelity.	$8.82
Type MC-2—primary tapped 30 50 and 200 250 ohms, secondary to grid, high fidelity.	9.80

Type *SSO-1

Type SO-1

U.T.C. INTERSTAGE AND LINE FILTERS

Stock units designed to take care of many filter requirements. Interstage filters have a nominal impedance of 10,000 ohms and lend themselves to effecting gain simultaneously with their frequency discrimination. All types are housed in hermetically sealed cases, shielded to reduce hum pick-up to 150 MV per gauss at 60 cycles.

Type	Description
BMI	Interstage band pass units have 2:1 gain and are sharply peaked, having approx. 2 db attenuation at ± 40 db per octave. **(Input 10,000 ohms output to grid.)**
HMI	Interstage high pass units have a loss of less than 6 db at cut-off frequency and an attenuation of 35 db at .67 cut-off frequency. (Input and output 10,000 ohms.)
LMI	Interstage low pass units have a loss of less than 6 db. at cut-off frequency and an attenuation of 35 db at 1.5 cut-off frequency. **(Input and output 10,000 ohms.)**
BML	Line band pass similar to **BMI**, except that **(Input is 500/600 ohms output to grid.)**
HML	Line band pass similar to **HMI**, except that **(Input and output is 500/600 ohms.)**
LML	Line band pass similar to **LMI**, except that **(Input and output is 500/600 ohms.)**

CASE DIMENSIONS

Types	Height x Width x Depth	Weight
BMI, LMI, BMI	1⅝" x 1⅜" x 1¹¹⁄₁₆"	6 ozs.
HMI, HML, LML	2½" x 1⅜" x 1¹¹⁄₁₆"	9 ozs.

STOCK FREQUENCIES

Frequency Cycles per Sec.	Type BMI	Type HMI	Type LMI	Type BML	Type HML	Type LML
60	BMI-60					
100	BMI-100					
120	BMI-120					
200		HMI-200	LMI-200		HML-200	
400	BMI-400			BML-400		
500	BMI-500	HMI-500	LMI-500		HML-500	
750	BMI-750					
1000	BMI-1000	HMI-1000	LMI-1000	BML-1000	HML-1000	LML-1000
1500	BMI-1500					
2000			LMI-2000			LML-2000
2500			LMI-2500			LML-2500
3000	BMI-3000	HMI-3000	LMI-3000			
4000						LML-4000
5000			LMI-5000			
8000						LML-8000
10000	BMI-10000		LMI-10000			LML-10000
12000						LML-12000

Any of the above Stock Frequencies Net Each $25.00.

Any of the above type filters are available in special frequencies from 100 to 12,000 cycles on order at a Net Price of $35.00 each.

U.T.C. VARIABLE INDUCTORS

The ideal solution to many filter, equalizer, oscillator and tuned audio circuit problems. By a simple set screw adjustment, a wide range of inductance from mean is obtainable. **Type VIC** is housed in a die cast case 1-11/32" long x 1¼" wide x 1-7/16" high and allows for a variation from +85% to —45% mean inductance. **Type HVC** are hermetically sealed to MIL T-27 specifications. Case dimensions are 1⅛" long x 25/32" wide x 1-7/32" high. Variation from mean inductance is from +200% to —70%. Note the DC MA shown is maximum recommended and will effect some reduction in inductance and Q.

VIC

HVC

TYPE No.	Min. Hys.	Mean Hys.	Max. Hys.	DC* Ma	Net Ea.
HVC-1	.002	.006	.02	100	$7.84
HVC-2	.005	.015	.05	60	7.84
HVC-3	.011	.040	.11	40	7.84
HVC-4	.03	.1	.3	30	7.84
HVC-5	.07	25	.7	20	7.84
HVC-6	.2	.6	2	15	7.84
HVC-7	.5	1.5	5	10	8.33
HVC-8	1.1	4.0	11	7	8.33
HVC-9	3.0	10	30	5	8.33
HVC-10	7.0	25	70	3.5	8.82
HVC-11	20	60	200	2	9.80
HVC-12	50	150	500	1.5	10.78

Type	Mean Hys.	DC MA*	Net Ea.
VIC-1	.0085	75	$5.88
VIC-2	.013	60	5.88
VIC-3	.021	50	5.88
VIC-4	.034	40	5.88
VIC-5	.053	35	5.88
VIC-6	.084	30	5.88
VIC-7	.13	25	5.88
VIC-8	.21	21	6.37
VIC-9	.34	18	6.37
VIC-10	.54	15	6.37
VIC-11	.85	12	6.37
VIC-12	1.3	10	6.37
VIC-13	2.2	8	6.37
VIC-14	3.4	7	6.37
VIC-15	5.4	6	6.86
VIC-16	8.5	5	6.86
VIC-17	13.	4	6.86
VIC-18	21.	3.5	7.35
VIC-19	33.	3	7.35
VIC-20	52.	2	7.35
VIC-21	83.	1.5	.7.84
VIC-22	130.	1	10.78

SUBOUNCER AND SUB-SUBOUNCER UNITS

These miniaturized components have relatively high efficiency and wide frequency response. Through the use of special core materials and winding methods, these units have performance and dependability characteristics far superior to any other comparable items. They are ideal for hearing aids, miniature radios and other types of miniature electronic equipment.

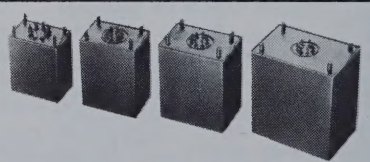
TYPE, SIZE & WEIGHT

Type SO	Subouncer 1³⁄₃₂" x 4³⁄₆₄" x ⅞"	.03 lb.
Type SSO	Sub-Subouncer 7⁄₁₆" x ¾" x 4³⁄₆₄"	.02 lb.

*Impedance ratio is fixed 1250:1 for SO1 and SSO1, 1:50 for SO3 and SSO3. Any impedance between the values shown may be employed.

Type	Application	Level	Pri. Imp.	MA D.C. in Pri.	Sec. Imp.	Pri. Res.	Sec. Res.	Net Ea.
*SO-1	Input	+ 4 V.U.	200 50	0	250,000 62,500	16	2650	$3.92
SO-2	Interstage/3:1	+ 4 V.U.	10,000	0-.25	90,000	225	1850	3.52
*SO-3	Plate to Line	+20 V.U.	10,000 25,000	3 1.5	200 500	1300	30	3.52
SO-4	Output	—20 V.U.	30,000	1.0	50	1800	4.3	3.52
SO-5	Reactor 50 HY at 1 mil. D.C. 3000 ohms D.C. Res.							2.94
SO-6	Output	+20 V.U.	100,000	.5	60	3250	3.8	3.92

Type	Application	Level	Pri. Imp.	MA D.C. in Pri.	Sec. Imp.	Pri. Res.	Sec. Res.	Net Ea.
*SSO-1	Input	+ 4 V.U.	200 50	0	250 000 62,500	13.5	3700	$4.12
SSO-2	Interstage /3:1	+ 4 V.U.	10,000	0-.25	90,000	750	3250	4.41
*SSO-3	Plate to Line	+20 V.U.	10,000 25,000	3 1.5	200 500	2600	35	3.83
SSO-4	Output	—20 V.U.	30,000	1.0	50	2875	4.6	3.63
SSO-5	Reactor 50 HY at 1 mil. D.C. 4400 ohms D.C. Res.							3.83
SSO-6	Output	—20 V.U.	100,000	.5	60	4700	3.3	3.83
*SSO-7	Transistor Interstage	+10 V.U.	20,000 30,000	.5 .5	800 1,200	850	125	2.94



U.T.C. MAGNETIC AMPLIFIERS FOR SERVO MOTOR APPLICATIONS

The MAT 1-4 Magnctic Amplifiers are exceptionally stable units designed for the control of 2 phase, 115V., 400 cycle servo motors. They are compact, hermetically sealed, magnetically shielded and meet MIL-T-27 and MIL-E-5400 Specifications.

TYPE NO.	MAT-1	MAT-2	MAT-3	MAT-4
230 Volt Supply				
Power output	4 W.	8 W.	11 W	18 W.
RL, ohms	3300	1600	1200	720
CL, mfd.	.2	.3	.5	.7
115 Volt Supply				
Power output	2 W.	4 W.	6 W.	9 W.
RL, ohms	6500	3300	2200	1450
CL, mfd.	.13	.2	.3	.45
Reson. Freq.	40 cyc.	35 cyc.	35 cyc.	20 cyc.
Log-Decr.	.18	.23	.03	.65
Cont. Wdg. Res.	6200 ohms	8450 ohms	4750 ohms	5650 ohms
Case				
Length, In.	1¼	1½	1¾	2⅛
Width, In.	1 15⁄16	2⅛	2½	3⅛
Height, In.	2 5⁄16	2¾	2 15⁄16	3⅜
Mtg. Dim., In.	1 3⁄16 x 1½	1 x 1⅝	1⅛ x 1⅞	1½ x 2½
Screws	4-40	6-32	8-32	8-32
Cutout, in.	1	1	1	1
Unit Weight, lbs.	.67	1.1	1.7	2.75

MAT-5 115V.-400 cyc. to 460 VCT; provides 230V. 48 MA DC or 460V. 24 MA DC. RC-37 Case . . . 1⅜ x 1⅜ x 1⅝ . . . ⅛ mtg. holes 1⅛ x 1⅛ . . . 6 oz.

MAT-6 Input . . . 10,000 ohms pri. . . . 1:15 C.T. ratio . . . phase shift under 1 . . . RCOF case.

	Net Ea.		Net Ea.
MAT-1	$27.44	MAT-4	$39.20
MAT-2	29.40	MAT-5	9.80
MAT-3	34.30	MAT-6	7.84

SUN RADIO For Your U.T.C. Transformers —— From Stock Delivery!

U.T.C. "HQ" SERIES TOROIDS

HQB

HQE

Permalloy dust toroids with many applications in the audio, carrier and supersonic fields requiring inductors of high "Q" and great stability. All types are hermetically sealed to MIL T-27 specifications.

CASE DIMENSIONS

Type	Length x Width x Height	Weight
HQA, HQC, HQD	$1\frac{13}{16}$" dia. x $1\frac{3}{16}$"	5 ozs.
HQB	$2\frac{5}{8}$" x $1\frac{5}{8}$" x $2\frac{5}{8}$"	14 ozs.
HQE	$1\frac{1}{16}$" x $\frac{1}{2}$" x $1\frac{7}{32}$"	1.5 ozs.

HQA HQC HQD

Type No.	Inductance Value	*DC MA Max.	Net Ea.
HQA-1	5 mhy.	400	$6.86
HQA-2	12.5 mhy.	260	6.86
HQA-3	20 mhy.	200	7.35
HQA-4	30 mhy.	160	7.35
HQA-5	50 mhy.	130	7.84
HQA-6	80 mhy.	100	7.84
HQA-7	125 mhy.	85	8.82
HQA-8	200 mhy.	65	8.82
HQA-9	300 mhy.	50	9.80
HQA-10	.5 hy.	40	9.80
HQA-11	.75 hy.	35	9.80
HQA-12	1.25 hy.	26	10.78
HQA-13	2. hy.	20	10.78
HQA-14	3. hy.	16	12.74
HQA-15	5. hy.	13	13.72
HQA-16	7.5 hy.	10	14.70
HQA-17	10. hy.	9	15.68
HQA-18	15. hy.	8	16.66
HQB-1	10 mhy.	410	15.68
HQB-2	30 mhy.	240	15.68
HQB-3	70 mhy.	170	15.68
HQB-4	120 mhy.	120	16.66
HQB-5	.5 hy.	60	16.66
HQB-6	1. hy.	41	17.64
HQB-7	2 hy.	30	18.62
HQB-8	3.5 hy.	22	19.60
HQB-9	7.5 hy.	16	20.58
HQB-10	12. hy.	11	21.56
HQB-11	18. hy.	9	22.54
HQB-12	25. hy	8	23.52
HQC-1	1 mhy.		12.74
HQC-2	2.5 mhy.		12.74
HQC-3	5 mhy.		12.74
HQC-4	10 mhy.		12.74
HQC-5	20 mhy.		12.74
HQD-1	.4 mhy.		14.70
HQD-2	1. mhy.		14.70
HQD-3	2.5 mhy.		14.70
HQD-4	5 mhy.		14.70
HQD-5	15 mhy.		14.70
HQE-1	5 mhy.		5.88
HQE-2	10 mhy.		5.88
HQE-3	50 mhy.		6.86
HQE-4	100 mhy.		7.35
HQE-5	200 mhy.		7.84

NEW "MQ" SERIES TOROIDS

Maximum Q Minimum Size

The "MQ" Series of permalloy dust coils provide the highest "Q" factor in their class. Stability is excellent. All units are hermetically sealed to MIL T-27 specifications. Hum pick-up is extremely low. The case is of high permeability, so that close spacing of units can be effected. Coupling attenuation approximately 80 db.

CASE DIMENSIONS

Type	Length x Width x Height	Weight
MQA	$1\frac{9}{32}$" x $1\frac{1}{16}$" x $1\frac{23}{32}$"	4 ozs.
MQB	$2\frac{9}{16}$" x $1\frac{5}{16}$" x $2\frac{13}{16}$"	14 ozs.
MQE	$1\frac{1}{16}$" x $\frac{1}{2}$" x $1\frac{7}{32}$"	1.5 ozs.

MQA TYPES

MQE

MQA

Type No.	Inductance	*DC Max.	Net Ea.
MQA-1	7 mhy.	250	$6.37
MQA-2	12 mhy.	200	6.37
MQA-3	20 mhy.	150	6.37
MQA-4	30 mhy.	125	6.86
MQA-5	50 mhy.	100	7.35
MQA-6	70 mhy.	80	7.35
MQA-7	120 mhy.	60	8.33
MQA-8	.2 hy.	50	8.82
MQA-9	.3 hy.	40	9.31
MQA-10	.5 hy.	30	9.31
MQA-11	.7 hy.	25	9.31
MQA-12	1 hy.	20	9.80
MQA-13	1.5 hy.	17	9.80
MQA-14	2.5 hy.	13	10.78
MQA-15	4 hy.	10	11.76
MQA-16	6 hy.	9	12.74
MQA-17	10 hy.	7	13.72
MQA-18	15 hy.	5	15.20
MQA-19	22 hy.	4	19.60

MQB TYPES

MQB

Type No.	Inductance	*DC Max.	Net Ea.
MQB-1	10 mhy.	400	$12.74
MQB-2	30 mhy.	250	12.74
MQB-3	70 mhy.	170	12.74
MQB-4	120 mhy.	120	13.72
MQB-5	.5 hy.	60	13.72
MQB-6	1 hy.	40	13.72
MQB-7	2 hy.	30	14.70
MQB-8	3.5 hy.	22	14.70
MQB-9	7.5 hy.	16	15.58
MQB-10	12 hy.	11	16.66
MQB-11	18 hy.	9	17.64
MQB-12	25 hy.	8	18.62

MQE TYPES

Type No.	Inductance	*DC Max.	Net Ea.
MQE-1	7 mhy.	135	$5.39
MQE-2	12 mhy.	100	5.39
MQE-3	20 mhy.	80	5.88
MQE-4	30 mhy.	65	5.88
MQE-5	50 mhy.	50	6.37
MQE-6	70 mhy.	40	6.37
MQE-7	100 mhy.	35	6.86
MQE-8	150 mhy.	30	7.35
MQE-9	.25 hy.	22	7.86
MQE-10	.4 hy.	17	8.33
MQE-11	.6 hy.	14	8.82
MQE-12	.9 hy.	12	9.31
MQE-13	1.5 hy.	9	9.31
MQE-14	2 hy.	8	9.80
MQE-15	2.8 hy.	7.2	10.78

U.T.C. LOW FREQUENCY HIGH Q COILS

Permalloy dust toroids are not suited to providing high Q at low frequencies. The MQL series of laminated Hipermalloy coils were specifically designed for this class of service. The unique structure employed provides exceptional Q and stability. Inductance values are laboratory adjusted to 2% tolerance at 1 volt, 60 cycles. Stability with voltage is excellent, for MQL-3 inductance variation is less than 1% from .1 V. to 1 V. 60 cycles. Temperature stability is exceptional, total inductance swing being less than 3.5% for the wide range of −55°C to +85°C. A hum reducing lamination structure plus heavy Hipermalloy shielding provide very low hum pickup . . . 240 microvolts/gauss for MQL-3 series connected. Two identical windings brought out to four terminals permit series, parallel, center tapped, or transformer type connections.

Type No.	Series Henries	Parallel Henries	Net Ea.
MQL-1	10	2.5	$20.00
MQL-2	20	5	20.00
MQL-3	200	50	21.00
MQL-4	400	100	22.00

MQL CASE

Diameter	$1\frac{13}{16}$"
Height	$2\frac{1}{2}$"
Mounting	$1\frac{1}{2}$" x $1\frac{1}{2}$"
Cutout	$1\frac{1}{2}$" dia.
Weight	1 lb.

U.T.C. CHANNEL FRAME FILAMENT TRANSFORMERS

Pri. 115 V. 50/60 Cycles—1500 V. Breakdown

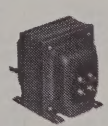
Type No.	Secondary	Dimensions, Inches W	D	H	Net Ea.
FT-1	2.5 V.C.T.-3A	$2\frac{7}{8}$	$1\frac{3}{8}$	$1\frac{11}{16}$	$2.21
FT-2	6.3 V.C.T.-1.2A	$2\frac{7}{8}$	$1\frac{3}{8}$	$1\frac{11}{16}$	2.06
FT-3	2.5 V.C.T.-6A	$3\frac{5}{16}$	$1\frac{5}{8}$	2	2.64
FT-4	6.3 V.C.T.-2.5A	$3\frac{5}{16}$	$1\frac{5}{8}$	2	14.70
FT-5	2.5 V.C.T.-10A	$3\frac{3}{4}$	$1\frac{3}{4}$	$2\frac{5}{16}$	2.84
FT-6	5 V.C.T.-3A	$3\frac{3}{4}$	$1\frac{3}{4}$	$2\frac{5}{16}$	2.79
FT-7	7.5 V.C.T.-3A	$3\frac{3}{4}$	$1\frac{3}{4}$	$2\frac{5}{16}$	2.94
FT-8	6.3 V.C.T.-6A	$4\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{5}{8}$	3.53
FT-9	2.5 V.C.T.-10A 10000V. Test	$4\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{5}{8}$	3.82
FT-10	24V CT-2A or 12V-4A	$4\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{5}{8}$	4.12

U.T.C. SIGNALLING AND CONTROL TRANSFORMERS

Primary 110-120 volts, 50/60 cycles—Secondary 4/8/12/16/20/24 volts

High power transformers suitable for operating relays, sirens, horns, gongs, etc. from 115 V. 50/60 cycle line. These units have four secondary terminals providing 4, 8, 12, 16, 20 and 24 volt output. The volt ampere rating is based on the 24 volt secondary tap with corresponding reduction at the lower voltages. Underwriters' approved primary leads are employed, and screw-type binding posts.

Type No.	Watts	Overall Dimensions	Mtg. Dim.	Net Ea.
SC-3	50	3 x $3\frac{1}{2}$ x $3\frac{9}{16}$	$1\frac{7}{8}$ x $2\frac{1}{4}$	$5.88
SC-4	100	$3\frac{1}{4}$ x 4 x 4	$2\frac{1}{8}$ x $2\frac{1}{2}$	7.84
SC-5	250	4 x 5 x $4\frac{3}{4}$	$3\frac{1}{4}$ x 3	12.74

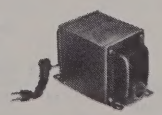


U.T.C. ISOLATION TRANSFORMERS

Ideal for isolating line noise, AC-DC sets, etc. Excellent electrostatic shielding. 1500 volt breakdown test. Six foot cord and female receptacle.

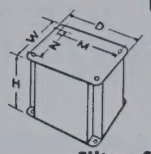
Primary 110-120 volts, 50/60 cycles—Secondary 110-120 volts

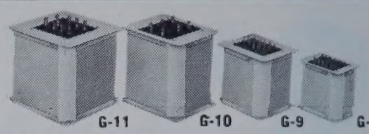
Type No.	Rating	L	W	H	Net Ea.
R-72	40 watts	$2\frac{3}{4}$	$2\frac{5}{8}$	$3\frac{1}{8}$	$5.59
R-73	100 watts	$3\frac{3}{8}$	$3\frac{1}{4}$	$3\frac{7}{8}$	8.33
R-74	250 watts	$4\frac{3}{8}$	$3\frac{7}{8}$	$4\frac{5}{8}$	14.70
R-75	600 watts	$6\frac{7}{8}$	$3\frac{7}{8}$	$4\frac{5}{8}$	23.52
R-76	1200 watts	$8\frac{3}{8}$	$4\frac{1}{2}$	$5\frac{7}{8}$	38.22
R-77	2500 watts (no-cord)	12	7	9	63.70



ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

G-1 G-2 G-3 G-4





G-11 G-10 G-9 G-8

SPECIAL SERIES TRANSFORMERS

Designed for popular-priced P.A. and amateur service. Finished in a rich commercial-type medium gray enamel. Audio Types have recessed terminal strip, allowing for mounting on breadboard or above or below chassis. Power Types are designed and recommended for ICAS intermittent use.

Type	CASE DIMENSIONS Height x Width x Depth	Weight
G-1	1⅞" x 2 13/16" x 1¾"	1 lb.
G-2	2 5/16" x 3⅜" x 1 15/16"	1½ lb.
G-3	2½" x 3 3/4" x 2 5/32"	2 lbs.
G-4	2 15/16" x 4⅛" x 2 5/16"	3 lbs.
G-5	3¾" x 3⅛" x 4½"	4½ lbs.
G-7	4⅝" x 4⅝" x 5½"	8 lbs.
G-8	4¾" x 5⅜" x 5¾"	12 lbs.
G-9	5⅞" x 5⅜" x 6¾"	21 lbs.
G-10	5⅞" x 6⅛" x 6⅝"	24 lbs.
G-11	5⅞" x 6½" x 7⅜"	31 lbs.
G-12	10¼" x 6⅞" x 9¼"	52 lbs.

Class A Input Transformers

Type No.	Application	Ratio	Case	Net Ea.
S-1	1 plate* to 1 grid	3½:1	G-2	$3.92
S-2	1 plate* to 2 grids	2:1 4:1	G-2	4.90
S-3	1 plate* to 1 or 2 grids compact type	2:1	G-1	3.63
S-4	1 plate* to 2 grids wide range response	1:1	G-3	5.59
S-5	Single or double button mike or line to 1 grid hum-bucking type	16:1	G-2	3.92
S-6	Single or double button mike or line to 1 grid, compact type	16:1	G-1	3.63
S-7	Single plate* and carbon mike to one or two grids	3:1 16:1	G-2	5.39

* Will match tubes like 6J5, 6C4, 12AU7, etc. Can be used with high mu triodes with loss in low frequencies.

Universal Driver Transformers

Type No.	Application	Case	Net Ea.
S-8	Single driver plate to pushpull grids	G-3	$5.39
S-9	Pushpull driver plates to grids of class B tubes up to 400 watts output	G-4	6.37
S-10	Pushpull 56, 6C6 triode, 6C5, or similar plates to 45's, 2A3's or 6L6's, self or fixed bias	G-3	5.39

Matching Transformers

Type No.	Application	Pri. Ohms	Sec. Ohms	Case	Net Ea.
S-11	Single 6J5, 6C4, 12AU7 or similar tube to line	15,000	200/500	G-2	$4.41
S-12	Line to speaker 15 watts	500, 2000, 4000	2, 4, 8, 15	G-2,	4.90
S-13	Line to speaker 30 watts	500, 2000, 4000	2, 4, 8, 15	G-4	6.88

Universal Output Transformers

To Line and Voice Coil

(Secondary Impedances: 500, 15, 8, 2 ohms)

Type No. Max. Watts	Primary Impedance	Typical Tubes	Class	Case	Net Ea.
	Single Tubes:				
	2500 ohms	2A3, 6B4, 6L6, 6Y6, 25L6, 35L6	A	G-2	$5.88
S-14	4000 ohms	6V6, 12A6	A		
10 W.	7000 ohms	6AC5, 6F6, 6K6, 7B5	A		
	10,000 ohms	1G5, 3C5, 6A4, 6N7	A		
	P. P. Tubes:				
	4000 ohms	6Y6, 25L6	AB	G-2	5.39
S-15	5000 ohms	2A3, 6B4, 6AS7	AB		
12 W.	10,000 ohms	1H4, 6AC5G, 6B5, 6A6, 6Y7	AB B		
S-16	3000 ohms	2A3, 6B4, 25L6	AB	G-4	6.86
30-W.	6000 ohms	2A5, 6F6 triodes, 6AS7, 6A6, 6N7	AB B		
	9000/10000 ohms	2A5, 6AC5, 6B5, 6F6, 6L6, 6V6, 807-triode	AB		
S-17	3800 ohms	6L6's	AB2	G-5	8.82
55 W.	4500/5000 ohms	4—6L6's 46, 1608, 809	AB1 B		

Universal Modulation Transformers

Secondary carries class C current
Any modulator tubes to any RF load.

Type No.	Audio Power	Case	Net Ea.
S-18	12 watts	G-3	$5.88
S-19	30 watts	G-4	7.84
S-20	55 watts	G-5	12.74
S-21	110 watts	G-7	17.64
S-22	250 watts	G-9	27.44

Filter, Swinging and Audio Chokes

Type No.	Service	Inductance	Current	Resistance	Insulation	Case No.	Net Ea.
S-23	Audio	450 Hy.	5 Ma.	5000 ohms	1500 V.	G-2	$3.72
S-24	P. P. Choke	500 Hy. C. T.	3 Ma.	6000 ohms	1500 V.	G-2	4.41
S-25	Filter	30 Hy.	30 Ma.	800 ohms	1500 V.	G-2	3.43
S-26	Filter	15 Hy.	60 Ma.	250 ohms	1500 V.	G-2	3.43
S-27	Filter	30 Hy.	75 Ma.	350 ohms	1500 V.	G-4	4.41
S-28	Filter	20 Hy.	100 Ma.	350 ohms	1500 V.	G-4	4.41
S-29	Filter	10 Hy.	175 Ma.	90 ohms	1500 V.	G-4	4.41
S-30	Swinging	5/25 Hy.	175 Ma.	90 ohms	1500 V.	G-4	4.41
S-31	Filter	20 Hy.	225 Ma.	100 ohms	2700 V.	G-5	5.88
S-32	Swinging	5/25 Hy.	225 Ma.	100 ohms	2700 V.	G-5	5.88
S-33	Filter	20 Hy.	300 Ma.	100 ohms	4000 V.	G-7	8.33
S-34	Swinging	5/25 Hy.	300 Ma.	100 ohms	4000 V.	G-7	8.33
S-35	Filter	20 Hy.	400 Ma.	60 ohms	5000 V.	G-8	11.76
S-36	Swinging	5/25 Hy.	400 Ma.	60 ohms	5000 V.	G-8	11.76
S-37	Filter	20 Hy.	550 Ma	60 ohms	6000 V.	G-8	13.72
S-38	Swinging	5/25 Hy.	550 Ma	60 ohms	6000 V	G-8	13.72

Combined Plate and Filament Units

Primary 115 V.—50/60 Cycles

Type No.	Voltage	D. C. Voltages*	Rectifier Fil.	Fil. No. 1	Fil. No. 2	Case No.	Net Ea.
S-39	490-400-0-400-490 175 Ma.	400/310	5 V.-3A	2.5 V.C.T. -6A	6.3 V.C.T. 4A	G-7	$14.70
S-40	525-425-0-425-525 250 Ma.	400/310	5 V.-3A	6.3 V.C.T. -3A	6.3 V.C.T. 3A	G-7	14.70
S-41	600-0-600 200 Ma.	475*	5 V.-3A	7.5 V. tapped 6.3 V.-3A	6.3 V.C.T. 2A	G-7	14.70
S-42	600-525-0-525-600 300 Ma.	480/400	5 V.-6A	7.5 V. tapped 6.3 V.-3A	6.3 V.C.T. 3A	G-8	16.66
S-43	525-0-525 450 Ma. 40-0-40 200 Ma.	400	5 V.-3A 5 V.-6A	6.3 V.-3A -2A	6.3 V.C.T. 5A	G-9	24.50

Based on two section filter, choke input

Plate Transformers — Bias Transformers

Primary 115 V.—50/60 Cycles

Type No.	High Voltage	DC Voltages*	DC Current	Case No.	Net Ea.
S-44	575-525-0-525-575	470 430	500 Ma.	G-9	$21.56
S-45	900-750-0-750-900	750 620	200 Ma.	G-8	16.66
S-46	1000-750-0-750-1000	825 600	300 Ma.	G-9	20.58
S-47	1500-1250-1000-0-1000-1250-1500	1275 1050/825	300 Ma.	G-10	26.46
S-48	1500-1250-1000-0-1000-1250-1500	1300 1075/850	500 Ma.	G-11	33.22
S-49	2100-1800-1500-0-1500-1800-2100	1815 1540 1275	300 Ma.	G-11	32.34
S-50	3000-2500-0-2500-3000	2625 2175	300 Ma.	G-12	49.00
S-51	Will supply any bias voltage from 15 to 100 volts DC within approximately 6% of desired value.		200 Ma.	G-5	10.78
S-52	will supply any bias voltage from 75 to 400 volts DC within approximately 6% of desired value.		200 Ma.	G-7	13.72

Based on two section filter for 200 Ma. and 300 Ma. units, single section filter for 500 Ma. units, both choke input.

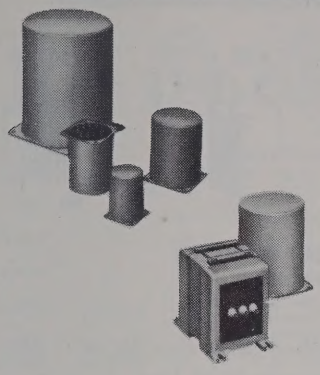
† 200 Ma. if used alone. ‡ 300 Ma. if used alone.

Filament Transformers

Primary Tapped 105, 115 Volts—50/60 Cycles

Type No.	Secondary Volts	Secondary Current	Insulation	Case No.	Net Ea.
S-53	2.5 VCT	10 A.	1500 V.	G-3	$4.60
S-54	5 VCT	4 A.	2500 V.	G-3	4.60
S-55	6.3 VCT	3 A.	1500 V.	G-3	4.60
S-56	7.5 VCT	3 A.	1500 V.	G-3	4.60
S-57	2.5 VCT	10 A.	10,000 V.	G-5	7.35
S-58	2.5 VCT	20 A.	10,000 V.	G-5	7.84
S-59	5 to 5.25 VCT	13 A.	5000 V.	G-5	7.35
S-60	5 to 5.25 VCT	22 A.	10,000 V.	G-7	10.78
S-61	7.5 VCT tapped 6.3 VCT	10 A.	3000 V.	G-5	7.84
S-62	10 VCT	10 A.	3000 V.	G-5	7.35
S-63	14 VCT tapped 12 VCT and 11 VCT	10 A.	5000 V.	G-7	12.25

Type No.	Fil. 1	Fil. 2	Fil. 3	Insulation	Case No.	Net Ea.
S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	3000 V.	G-5	$8.33
S-65	2.5 VCT-5A	5 VCT-4A	6.3 VCT-3A	3000 V.	G-5	8.33
S-66	2.5 VCT-10A	7.5 VCT-6.5A		3000 V.	G-5	8.33
S-67	VCT-6A	6.3 VCT-5A		3000 V.	G-5	8.33
S-68	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	3000 V.	G-5	8.33
S-69	6.3 VCT-3A	7.5 VCT-6.5A		3000 V.	G-5	8.33
S-70	6.3 VCT-5A	6.3 VCT-5A		3000 V.	G-5	8.33
S-71	2.5 VCT-6A	2.5 VCT-6A	2.5 VCT-12A	10000 V.	G-7	11.76
S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	5000 V.	G-5	8.82

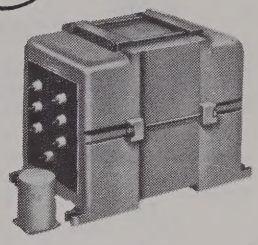


U.T.C. COMMERCIAL GRADE COMPONENTS

The commercial grade series of transformers incorporate conservative design and rugged construction to assure dependability under continuous service operation in industrial and commercial grade communication equipment. These units are mounted in uniform drawn cases finished in light grey enamel and intended for chassis mounting. All items are poured with special sealing compound in addition to vacuum impregnation of coil structures.

Commercial Grade Case

Case No.	Base Dim. (Sq.)	Mounting Dim. (Sq.)	Height +1/8, −1/16	Cutout Dia.	Unit Weight (Lbs.)
RC-50	1 5/8	1 3/16	2 1/4	1 1/2	1/2
RC-62	1 11/16	1 1/2	2 1/2	1 1/2	1
RC-75	2 3/16	1 13/16	2 7/8	1 7/8	1 1/2
RC-87	2 9/16	2 3/32	3 1/4	2	2 1/2
RC-100	3	2 3/8	3 3/4	2 3/8	3 1/2
RC-112	3 7/16	2 11/16	4 1/8	2 7/8	5
RC-125	3 3/4	3	4 1/2	3	6 1/2
RC-150	4 1/2	3 9/16	5 1/2	3 3/4	11
RC-152	5 1/8	4 1/8	5 1/2	4	15 1/2
RC-175	5 3/4	4 7/8	7 1/8	4	22



Power and Bias Transformers

Primary 115 volts 50/60 cycles

Type No.	High Voltage	DC MA.	Fil. 1	Fil. 2	Fil. 3	Fil. 4	Case No	Net Ea.
CG-422	435-365-0-365-435 125-0-125	125 25	5V-3A	5V-2A	6.3 VCT-3A	2.5 VCT-5A	RC-150	$14.70
CG-428	500-0-500 80-0-80	250 100	5V-3A	5V-2A	6.3 VCT-4A	6.3 VCT-3A, tapped 2.5 VCT-3A	RC-152	19.60
CG-429	600-525-0-525-600	250	5V-3A	6.3 VCT-3-A	7.5 VCT-3A, tapped 6.3 VCT-4A		RC-152	19.60
CG-431	500-400-0-400-500 80-0-80	500 100	5V-6A	5V-2A	6.3 VCT-5A	6.3 VCT-3A	RC-175	26.46
CG-315	Tapped for any DC voltage from 15 to 100 volts within 6%—250 MA						RC-125	11.76
CG-316	Tapped for any DC voltage from 75 to 400 volts within 6%—250 MA						RC-152	17.64

Filter Chokes

INDUCTANCE SHOWN IS AT RATED DC MA

Type No.	Inductance Henrys	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Ea.
CG-40	10	200	110	1750	RC-112	$6.37
CG-41	4-20	200	110	1750	RC-112	6.37
CG-44	30	100	400	1750	RC-100	5.88
CG-45	250	15	5000	1750	RC-87	5.88
CG-48C	75	50	2200	1750	RC-87	5.88
CG-100	12	150	110	2500	RC-125	6.37
CG-102	12	250	100	3000	RC-150	9.31
CG-104	10	350	90	5000	RC-152	13.72
CG-108	10	500	52	7000	RC-175	24.50
CG-1$	10	1000	40	9000	11½x4¾x 6⅞ H, 60 lb.	44.10

Swinging Input Chokes

INDUCTANCE SHOWN IS FROM 100% TO 10% OF RATED DC MA

Type No.	Inductance Henrys	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Ea.
CG-101	5-25	150	110	2500	RC-125	$6.37
CG-103	5-25	250	100	3000	RC-150	9.31
CG-105	5-25	350	90	5000	RC-152	13.72
CG-109	5-25	500	52	7000	RC-175	24.50
CG-1C	5-25	1000	40	9000	11½x4¾x 6⅞ H, 60 lb.	44.10

Filament Transformers

Primary for 105, 115, 220, 230 volts, 50/60 cycles. These transformers may be used on 25 to 43 cycles if 220 volt primary is used on 110 volts. Secondary voltage is simultaneously reduced to half. *Two Windings.

Type No.	Sec. Volts C. T.	Sec. Amps.	Working Voltage	Test Voltage	Case No.	Net Ea.
CG-33	6.3	4	500	2000	RC-75	$5.88
CG-34	2½	10	2500	6000	RC-112	7.84
CG-120	2½	10	5000	11000	RC-125	11.76
CG-121	5	25	5000	11000	RC-150	14.70
CG-122	7.5/6.3	10	1500	4000	RC-125	11.76
CG-124	10	10	1500	4000	RC-150	12.74
CG-125	14/12/11	10	1500	4000	RC-150	13.72
CG-126	*14/12/11 14/11/10	10 10	1500	4000	RC-152	19.60

Varipower Auto-Formers

Designed for line voltage control, filament control and reduced power operation. Output voltage from 0 to 130 volts, 50/60 cycles. Varipower units permit control of filament voltage at the tube socket to within 2½% of desired value simultaneously with line voltage control and plate voltage control. Can be used to reduce or increase voltages on filament transformers. Taps at 25, 55, 75, 95, 100, 105, 110, 115, 120, 125 and 130 volts permit output voltages from 0 to 130 volts in 5 volt steps.

Type No.	Watts Output	Case No.	Net Ea.
CVA-1	150	RC-112	$8.82
CVA-2	250	RC-125	10.78
CVA-3	500	RC-150	13.72
CVA-4	1000	RC-152	17.64
CVA-5	2000	RC-175	26.46

CG Plate Transformers

Primaries for 105, 115, 220, 230 volts, 50/60 cycles. For reduced power, secondary voltages can be reduced to half by using 220V. Pri. on 110 volts. These transformers may be used on 25 to 43 cycles if 220V. Pri. is used on 110 volts. Secondary voltage is simultaneously halved.

Type No.	High Voltage	DC Voltage	DC MA	Case No.	Net Ea.
CG-300	625-515-0-515-625	500/400	200	RC-150	$13.72
CG-301	580-530-300-0-300-530-580	475/425/250	420	RC-152	17.64
CG-302	950-750-0-750-950	760/610	360	RC-175	24.50
CG-303	1500-1235-400-0-400-1235-1500	1250/1000 300	260* 175	RC-175	29.40

* 300MA, if used without load on low voltage winding.

TYPE EC CASE UNITS

Type No.	High Voltage	DC Voltage	DC MA	L	W	H	Wt. Lbs.	Net Ea.
CG-304	1500-1235-0-1235-1500	1250/1000	800	15	8½	10⅜	100	$107.80
CG-305	2400-1750-0-1750-2400	2000/1500	300	10½	4¾	6⅞	50	49.00
CG-306	2400-1750-0-1750-2400	2000/1500	500	15	8½	10⅜	100	98.00
CG-307	3500-3000-2400-0-2400-3000-3500	3000/2500 2000	300	14½	8½	10⅜	90	98.00
CG-308	3500-3000-2400-0-2400-3000-3500	3000/2500 2000	500	16½	8½	10⅜	125	117.60
CG-309	3500-3000-2400-0-2400-3000-3500	3000/2500 2000	1000	21	10	13¼	185	254.80
CG-310	4600-4050-3500-0-3500-4050-4600	4000/3500 3000	600	19	10	13¼	150	205.80
CG-311	1500-1235-0-1235-1500	1250/1000	500	10½	4¾	6⅞	50	49.00
CG-312	1800-1500-0-1500-1800	1500/1250	400	10½	4¾	6⅞	50	49.00

CG Varimatch Line to Voice Coil Transformers

The UTC VARIMATCH line to voice coil transformers will match any voice coil or group of voice coils to a 500 ohm line. More than 50 voice coil combinations can be obtained, as follows:

.2, .4, .5, .62, 1, 1.25, 1.5, 2, 2.5, 3, 3.3, 3.8, 4, 4.5, 5, 5.5, 6, 6.25, 6.6, 7, 7.5, 8, 9, 10, 11, 12, 14, 15, 16, 18, 20, 25, 28, 30, 31, 40, 47, 50, 63, 69, 75.

Where speakers are to be connected in groups to one transformer, it is preferable that parallel connection be used to eliminate the possibility of multiple resonance. If two speakers of different impedances are connected in parallel, the lower impedance speaker will develop greater power. If connected in series, the higher impedance speaker will develop greater power.

Type No.	Audio Watts	Primary Impedance	Secondary Impedance	Case No.	Net Ea.
CVL-1	15	500 ohms	.2 to 75 ohms	RC-87	$6.86
CVL-2	40	500 ohms	.2 to 75 ohms	RC-125	8.82
CVL-3	75	500 ohms	.2 to 75 ohms	RC-150	11.76

Universal units designed to match **any tubes** within the rated output power, to line or voice coil. Output impedance 500, 200, 50, 16, 8, 5, 3, 1.5 ohms. Primary impedance 3000, 5000, 6000, 7000, 8000, 10,000, 14,000 ohms.

Type No.	Audio Watts	Typical Tubes	Case No.	Net Ea.
CVP-1	12	2A3, 25L6, 6V6, 6B4G, 6AQ5	RC-100	$9.31
CVP-2	30	2A3, 6L6, 6V6, 807, 5881, 6B4G	RC-125	10.78
CVP-3	60	300B's, 6L6's, 801, 807, 1614, 5881, 1625	RC-150	16.66
CVP-4	125	807's, 4-6L6's, 845's, 4-1614's, 6146, 6149	RC-152	20.58
CVP-5	300	211, 242A's, 203A's, 838's, 4-845's, ZB-120's	RC-175	35.28

CG Varimatch Line Autoformers

UTC Varimatch Line Autoformer will match one to ten 500 ohm lines or CVL windings to the 500 ohm output of an audio amplifier. The CVL-10 autoformer has impedances of 500, 250, 167, 125, 100, 83, 71, 62, 50 ohms.

Type No.	Audio Watts	Case No.	Net Ea.
CVL-10	15	RC-87	$7.84

U.T.C. COMMERCIAL GRADE COMPONENTS

Continued from preceding page

CG Varimatch Driver Transformers

Type No.	Primary	Typical Output Tubes	Case No.	Net Ea.
CG-51AX	All single tubes like: 6C5, 6C4, 12AU7, 2A3, 5814	2A3, 45, 6L6	RC-87	$7.84
CG-53AX	P. P. tube like: 2A3, 6L6, 6B4G	46, 4-46, 841, 210, 801, RK-18, 800, 203A, 838, 805, 50T, 830B	RC-112	8.82
CG-59AX	50, 200, 500 ohm line	805, 838, 203A, ZB-120, 100TH, 800, 55T, RK-18	RC-112	9.80
CG-238AX	4-2A3, 4-45, 4-50, 2-211A, 2-845	4-805's, 4-838's, 4-203A's, 2-204's, 2-849's, 2-HF300's, 2-HF200's, 2-250TH's, 2-450TH's	RC-150	17.64
CG-512	50, 200, 500 ohm line	2-250TH, 2-450TH, 2-HF200, 2-HF300, 2-204A, 2-849	RC-150	17.64

CG Varimatch Modulation Units

Will match any modulator tubes to any RF load.

Type No.	Max. Audio Watts	Max. Class C Input	Typical Modulator Tubes	Case No.	Net Ea.
CVM-0	12	25	2A3, 6B5G	RC-100	$8.33
CVM-1	30	60	6V6, 2A3, 6L6, 807, 5881	RC-125	10.78
CVM-2	60	125	801, 6L6, 809, 4-46, T-20, 1608, 6146, 6149	RC-150	14.70
CVM-3	125	250	800, 807, 845, TZ-20, RK-30, 35-T	RC-152	17.64
CVM-4	300	600	50-T, 203A, 805, 838, T-55, ZB-120	RC-175	32.34
CVM-5	600	1200	805, HF-300, 204A, HK-354, 250TH	7x12x9H 60 lbs.	78.40

Input, Interstage, Mixing and Low Level Output Transformers

Type No.	Application	Primary Impedance Ohms	Secondary Impedance Ohms	Case No.	Net Ea.
CG-131	1 plate to 1 grid	15,000	135,000 3:1 ratio	RC-50	$8.33
CG-132	1 plate to 2 grids	15,000	135,000 centertapped 3:1 ratio overall	RC-62	8.33
CG-133	2 plates to 2 grids	30,000 P to P	80,000 overall 1.6:1 ratio overall	RC-75	8.33
CG-134	Line to 1 grid humbucking	50, 200, 500	80,000	RC-50	8.33
CG-135	Line to 2 grids humbucking	50, 200, 500	120,000 overall	RC-50	8.82
CG-235	Line to 1 or 2 grids, humbucking: multiple alloy shielded for low hum pickup	50, 200, 500 ohms	80,000 overall	RC-75	10.78
CG-136	Single plate and low impedance mike or line to 1 or 2 grids humbucking	15,000, 50, 200	80,000 overall	RC-62	10.78
CG-233	PP 6C5, 12AU7, similar triodes to AB 45's, 2A3's, 6L6's, etc.	30,000 P to P	25,000 overall .9:1 ratio overall	RC-87	7.84
CG-333	PP 6C5, 12AU7, similar triodes to fixed bias 6L6's	30,000 P to P	5,000 overall .4:1 ratio overall	RC-87	6.86
CG-433	PP 45, 2A3, similar tubes to fixed bias 2 or 4 6L6's	5,000 P to P	1,250 overall .5:1 ratio overall	RC-100	7.84
CG-137	Mixing	50, 200, 500	50, 200, 500	RC-50	6.86
CG-140	Triode plate to line	15,000	50, 200, 500	RC-50	6.86
CG-141	PP triode plates to line	30,000 P to P	50, 200, 500	RC-50	8.33

Output Transformers

Secondary Impedances: 500, 200, 16, 8, 5, 3, 1.5 ohms

Type No.	Imped. P. P. Ohms, Overall	Typical Tubes	Max. Watts	Case No.	Net Ea.
CG-15	8,000	6F6 triode, 6V6	20	RC-100	$8.82
CG-15	3,000/5,000	2A3, 6B4, 6AS7G, 6L6, 6080	20	RC-100	8.82
CG-19	6,000/10,000	6V6, Triode: 6L6, 5881	20	RC-100	8.82
CG-710	14,000/20,000	6K6, 7B5, 6AK6	20	RC-100	8.82
CG-2L6	9,000	6L6's, AB1, 5881	30	RC-125	11.76
CG-4L6	3,800/4,500	2-6L6's, AB2 or 4-6L6's AB1, 6146, 6149	55	RC-150	19.60

NEW UNIVERSAL INTERSTAGE EQUALIZER—CGE-1A

The UTC CGE-1A is the ideal device for any application where frequency response control is desired. Incorporating the latest developments in design and manufacture, this new unit provides the ultimate in control and flexibility. This equalizer is not a simple R-C tone control, but employs resonant circuits in a unique arrangement providing equalization characteristics unobtainable by conventional circuits.

CGE-1A Panel Dim. 2⅜" x 3½" x 2½" deep. **$18.00 Net Ea.**

CASE Q

CASE D

CASE F

CASE A

ALTEC-LANSING PEERLESS TRANSFORMERS

The letter following the Catalog No. indicates Case Type.
*Types shown with asterisk have 90 db electro-magnetic shield.
†Types shown with cross have 30 db electro-magnetic shield.
**Types shown with double asterisk for standardized 70-volt R.T.M.A. line.

High Quality Transformers 20-20 Line

Frequency response ±1 db from 20-20,000 cps; less than 30 db down (at 20 cps) at rated power.

Input Transformers

Cat. No.		Pri. Imp. in Ohms	Sec. Imp. in Ohms	Size H.xD.xW.	Net Ea.
*K221Q	Low Level	500, 250-30 or 600, 300-36	70,000 or 84,000	3½"-2⅜"-2½"	$22.58
K281Q	High Level	500, 220, 125, 56, 14 or 600, 265, 150, 67, 16	30,000 or 36,000	4⅜"-3⅜"-3½"	35.19

Interstage Transformers

*G212Q	Low Level	10,000 2,500	40,000 10,000	3½"-2⅜"-2½"	$23.47
†G252Q	Line Level	10,000 2,500	40,000 10,000	4⅛"-3⅜"-3⅛"	33.52

Output Transformers

Cat. No.	Watts	Pri. Imp. P. to P. in Ohms	Sec. Imp. in Ohms	Size H.xD.xW.	Net Ea.
S227Q	20	10,000CT	16-8-4-2	4⅝"-3⅝"-3½"	$16.45
High Level					
S230Q	20	6,600CT	16-8-4-2	4⅝"-3⅝"-3½"	16.16
S240Q	20	5,000CT	16-8-4-2	4⅝"-3⅝"-3½"	16.16
**S242Q	20	5,000CT	500-250125-62½	4⅝"-3⅝"-3½"	16.45
S245Q	20	3,000CT	16-8-4-2	4⅝"-3⅝"-3½"	16.16
S265Q	40	10,000CT 2,500	16-8-4-2	5" -4⅜"-4⅜"	26.96
**S270Q	40	2,500CT	500-250-125-62½	5" -4⅜"-4⅜"	29.46

Line Matching Transformers

E214Q	10	1,000 500 250	16-12-8-4-2	4⅛"-3⅜"-3⅛"	15.28
**E243Q	20	1,000CT 750-500 CT 250-125	16-12-8-4-2	4⅝"-3⅝"-3½"	18.22

Highest Quality Transformers 20-20 Plus Line

Frequency response ±1 db. from 10-100,000 cps; less than 2 db down (at 20 cps) at rated power.

Input Transformer

Cat. No.		Pri. Imp. in Ohms	Sec. Imp. in Ohms	Size H.xD.xW.	Net Ea.
K241D	Low Level	500, 280, 125, 31 or 600, 340, 150, 37.5	70,000	2¼"-1½"-2"	$24.66

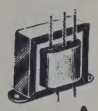
Output Transformers

Cat. No.	Watts	Pri. Imp. P. to P. in Ohms	Sec. Imp. in Ohms	Size H.xD.xW.	Net Ea.
S226Q	20	6,600CT	16-12-8-4	4⅛"-3⅜"-3⅛"	$22.28
S256Q	40	5,000CT	16-12-8-4	4⅝"-3⅝"-3½"	29.40

Super Standard Output Transformers

Frequency response ±1 db. 20-30,000 cps; less than 3 db down (at 25 cps) at rated power.

Cat. No.	Watts	Pri. Imp. P. to P. in Ohms	Sec. Imp. in Ohms	Size H.xD.xW.	Net Ea.
S510F	10	10,000CT 8,000CT	16-8	2⅞"-2¾"-2½"	$10.00
S526F	20	6,600CT 5,000CT	16-8-4	4⅜"-3⅛"-2¾"	12.35
S542F	40	5,000CT 4,000CT	16-8-4	4¹⁵⁄₁₆"-3⅜"-3⅜"	15.28
**S552A	60	3,800CT 3,200CT	330-82½ 16-12-8-4-2	4¾"-4⅝"-3⅞"	19.41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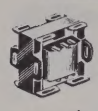
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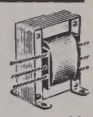
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Power Transformers

All Primaries for 117V, 60 cycle operation.

Part No.	Plate Supply AC Volts	DCMA	Max. DCMA*	Rect. Fil. Volts	Rect. Fil. Amps.	Other Fils. Volts	Other Fils. Amps.	Height Overall	Base Area	Mtg. Type	Net Ea.
P-8158	117†	200				6.3	4.25	3½	3⅝ x 1¾	M‡	$9.32
						6.3	4.0				
						6.3	2.0				
P-8336	117†	280				6.3	9.5	4¼	3¼ x 4½	M‡	9.41
						6.3	0.6				
						6.3	1.2				
P-8168	220-0-220	330		5.0	3.0	6.3†	6.5	4⅝	3¼ x 4½	M‡	15.67
	130-0-130	220				6.3†	6.5				
						or 12.6 CT†	6.5				
P-8155	225-0-225	90	105	5.0	2.0	6.3	5.15	3¾	2¹³⁄₁₆ x 3¾	M	6.53
P-8353‡	265-0-265	300		5.0	6.0	12.6 CT	6.0	5¾	3¾ x 5¼	C3	15.30
P-8334	275-0-275	305		5.0	5.0	6.3	8.5	5⅜	3¼ x 4½	M‡	13.39
						6.3	1.2				
P-8167	280-0-280	400	450	5.0	6.0	6.3	4.5	6	3¹³⁄₁₆ x 4¾	M‡	16.76
						6.3	8.5				
P-8332	280-0-280	260		5.0	5.0	6.3	7.1	4¹³⁄₁₆	3¾ x 4½	M‡	12.21
						6.3	1.2				
						6.3	.9				
P-8352‡	290-0-290	240		5.0	3.0	12.6 CT	5.25	4⅞	3¾ x 4¾	C	11.67
P-8333	295-0-295	225		5.0 CT	3.0	6.3	11.4	4⅝	3¾ x 4½	M3‡	11.46
						6.3	.9				
P-8335	300-0-300	325		5.0	6.0	6.3	8.8	5⅛	3¾ x 4½	M‡	13.38
						6.3	1.5				
P-8164	300-0-300	225	250	5.0	3.0	6.3	9.0	4½	3⅞ x 4½	M‡	11.82
P-8331	310-0-310	240		5.0	3.0	6.3	6.4	4½	3¾ x 4½	M‡	11.02
						6.3	3.0				
P-8337	315-0-315	225		5.0	3.0	6.3	8.25	4½	3¾ x 4½	M3	11.82
P-8338	315-0-315	310		5.0	6.0	6.7	10.0	5⅝	3⅞ x 4¾	M‡	12.00
						6.4	1.6				
P-8339‡	325-0-325	255		5.0	3.0	12.6 CT	5.25	4⅞	3¾ x 5	C	9.85
P-5059§	337.5-0-337.5	200	225	5.0 CT	3.0	6.3 CT	5.0	4¾	4¾ x 4	C	9.94
P-8166	340-0-340	330	360	5.0	6.0	6.3	2.5	6	3¹³⁄₁₆ x 4¾	M‡	17.37
						6.3†	5.0				
						6.3†	5.0				
						or 12.6 CT†	5.0				
P-8345	350-0-350	215		5.0	3.0	6.3	9.0	5	3¾ x 4½	M‡	11.82
						6.3	1.2				
P-8165	350-0-350	180		5.0	3.0	6.3	2.0	4¾	3¾ x 4½	M‡	16.81
	220-0-220	70				6.3	10.0				
P-8340	355-0-355	270		5.0	6.0	6.3	9.5	5½	3¾ x 4½	M‡	12.47
						6.3	1.65				
						6.3	2.4				
P-8350	350-0-350	270		5.0	6.0	5.0	2	5½	3¾ x 4½	M‡	13.40
						6.3	8.85				
						6.3	1.6				
						6.6	7.8				
P-8160	360-0-360	185		5.0	3.0	6.45	12.0	4¼	3¾ x 4½	M	11.90
	165-0-165	65									
P-8341	360-0-360	175		5.0	3.0	12.6 CT	5.45	4⅞	3¾ x 4⅞	C‡	11.82
	220-0-220	110		5.0	2.0						
P-8349	360-0-360	260		5.0	6.0	5.0	2	5½	3¾ x 4½	M‡	16.46
						6.3	8.85				
P-8159	360-0-360	250	290	5.0	3.0	5.0	2.0	5⅛	3¹³⁄₁₆x4¾	M‡	13.81
						6.3	8.0				
						6.3	0.6				
P-8351‡	360-0-360	240		5.0	6.0	6.5	9.3	4¹³⁄₁₆	3¾ x 4½	M	13.96
P-8343‡	360-0-360	220		5.0	3.2	12.8 CT	5.8	4⅞	3¾ x 5¼	C	12.05
	220-0-220	110		5.0	2.0						
P-8344§‡	365-0-365	170		5.0	3.2	12.6	4.25	4⅞	3¾ x 4½	C	11.47
	200-0-200	84		5.0	2.0						
P-8342	365-0-365	260		5.0	6.0	6.3	8.85	5¾	3¾ x 4½	M‡	11.82
						6.3	1.2				
P-8156	365-0-365	295	340	5.0	6.0	5.0	2.0	6⅛	3¹³⁄₁₆x 4¾	M‡	17.13
						12.6 CT	5.0				
P-8348	365-0-365	270		5.0	6.0	6.7	4.5	4⅞	3¾ x 4½	M‡	14.04
P-8163	370-0-370	190	225	5.0	3.0	6.3	7.75	5¹⁄₁₆	3¹³⁄₁₆x 4¾	M‡	14.16
						6.3	1.2				
P-6315	370-0-370	275	310	5.0 CT	3.0	6.3 CT	7.0	4¼	3¾ x 4½	M	11.47
P-9154	375-0-375	205	230	5.0	3.0	5.0	2.0	4¼	4⅝ x 4½	M	10.88
						6.3	5.6				
P-8171	375-0-375	225	250	5.0	3.0	6.3	2.0	5	3¾ x 4½	M3‡	13.87
						6.3	9.0				
P-8162	380-0-380	180	210	5.0 CT	3.0	6.3	9.0	5½	4½ x 3⅞	M3‡	11.32
P-8169	380-0-380	220	250	5.0	3.0	6.3	1.2	4⅝	3¾ x 4½	M‡	13.90
						6.3†	5.0				
						6.3†	7.0				
						or 12.6 CT†					
P-8170‡	380-0-380	220	250	5.0	3.0	6.3	1.2	4¾	4 x 4¾	C	13.51
						6.3†	5.0				
						6.3†	7.0				
						or 12.6 CT†					
P-8347	385-0-385	230		5.0	3.0	5	2	5⅛	3¾ x 4½	M‡	16.60
						6.45	7.4				
						6.3	1.6				
P-8157	385-0-385	195		5.0	3.0	6.3	7.65	4¾	3¾ x 4½	M	14.75
	235-0-235	105		5.0	2.0	6.3	0.6				
						5.0	2.0				
P-8161	385-0-385	230	270	5.0	3.0	6.3	9.0	5⅛	3¹³⁄₁₆x 4¾	M‡	15.78
				5.0	2.0						
P-8346‡	400-0-400	180		5.0	3.0			4⅝	3¾ x 4¾	C	14.40
	330-0-330	180		5.0	3.0						

*Loading to maximum DCMA will have no appreciable effect on the service or life of the transformer. †For use in voltage doubler circuits. ‡With copper shorting band to reduce external magnetic field. †May be used as 6.3V windings or in series as 12.6V C.T. §Primary for 117/107 volts.

Cathode Ray Tube Power Transformers

For use with Type 2X2 Rectifier tubes in a conventional half-wave high voltage supply.

Part No.	Plate Supply A.C. Volts	D.C. Milliamps	Rectifier Filament Volts	Rectifier Filament Amps.	Other Windings Volts	Other Windings Amps.	Mtg. Type	Height Overall	Base Area	Net Ea.
P-8150	1,550 half-wave	1.5	2.5	1.75			TD	3¹⁄₁₆	3 x 2½	$6.47
P-8151	2,400 half-wave	5.0	2.5	2.0	2.5	2.0	C	4⅝	3⅜ x 3⅞	9.58

Photoflash Transformers

Write to Sun Radio & Electronics Co., Inc., 650 Sixth Avenue, New York 11, N. Y. for Stancor Bulletin No. 470 for electronic flash circuit and parts list.

Part No.	Application	Pri.	Sec.	Mtg. Type	Height Overall	Base Area	Net Ea.
P-6425	Power transformer for AC powered electronic flash circuits.	105/115/125V. 60 cy.	Charges up to 1050 mfd. to 450 Volts D.C.	S	2¹⁄₁₆	2¹⁵⁄₁₆x2	3.09
P-6426	Trigger coil for use with 450V flashtube. Replaces GE 86G41; length ¾", diameter ⁵⁄₁₆"						1.47

All Primary Windings are for 117V-60 cycle operation unless otherwise indicated.
§Exact replacement for solar model CF-160. Use original mounting brackets.

Focus Coils

Part No	Resistance D.C. Ohms	Max D.C. MA.	Case Dimensions	Case Depth	Mtg. Type	Net Ea.
FC-10	247	200	3¹¹⁄₁₆ x 3¹¹⁄₁₆	1¹⁵⁄₁₆	FC	$5.03
FC-11	470	140	4¾ Diameter	1½	FO	6.41
FC-12	370	165	3¹¹⁄₁₆ x 3¹¹⁄₁₆	1¹⁵⁄₁₆	FC	5.03

Combination Plate and Filament Supply

All Primary windings for 117V-60 cycle operation unless otherwise indicated. The 8400 Series power transformers listed below cover 95% of today's power transformer needs.

POWER TRANSFORMERS TO PROVIDE APPROXIMATELY 260 VOLTS D.C. TO CONDENSER INPUT FILTER

Part No.	Plate Supply A.C. Volts	D.C. Ma	Rectifier Fil. Volts	Rectifier Fil. Amps	Other Windings Volts	Other Windings Amps	Mtg. Type	Height Overall	Base Area	Net Ea.
PC8401	235 0 235	40	5.0	2.0	6.3 CT	2.0	PC	3¹⁄₁₆	2⅝ x 2⅝	$3.97
PM8401							PM	2⅝	2½ x 3	
PC8402							PC	3¹⁄₁₆	2⅝ x 2¾	
PM8402	240 0 240	55	5.0	2.0	6.3 CT	2.0	PM	2¾	2½ x 3	4.41
PC8403							PC	3¹⁄₁₆	2⅝ x 3¹⁄₁₆	
PM8403	250 0 250	70	5.0	2.0	6.3 CT	2.5	PM	3¹⁄₁₆	2½ x 3	4.94
PC8404							PC	3⅝	3 x 3½	
PM8404	260 0 260	90	5.0	2.0	6.3 CT	3.0	PM	3⅝	2⅞ x 3¹⁄₁₆	5.56
PC8405							PC	4	3¹⁄₁₆ x 3½	
PM8405	270 0 270	120	5.0	3.0	6.3 CT	3.5	PM	3½	3¹⁄₁₆ x 3¾	6.14

POWER TRANSFORMERS FOR USE WITH CHOKE INPUT FILTER, VR-TUBE REGULATED SUPPLY, SPEAKER FIELD IN FILTER, OR HIGHER VOLTAGE WITH CONDENSER INPUT FILTER

PC8406	325 0 325	40	5.0	2.0	6.3 CT	2.0	PC	3¹⁄₁₆	2⅝ x 2¾	4.06
PM8406							PM	2⅝	2½ x 3	
PC8407							PC	3¹⁄₁₆	2⅝ x 3¹⁄₁₆	4.47
PM8407	325 0 325	55	5.0	2.0	6.3 CT	2.0	PM	3⅛	2½ x 3	
PC8422							PC	4	3¼ x 3⅞	7.91
PM8422	325 0 325	150	5.0	3.0	6.3 CT	5.0	PM	3¾	3⅛ x 3¾	
PC8408							PC	3⅝	3 x 3¹⁄₁₆	5.05
PM8408	340 0 340	70	5.0	2.0	6.3 CT	2.5	PM	3½	2⅞ x 3¹⁄₁₆	
PC8409							PC	3⅝	3 x 3¹⁄₁₆	5.64
PM8409	350 0 350	90	5.0	2.0	6.3 VT	3.0	PM	3¾	2⅞ x 3¹⁄₁₆	
PC8410							PC	4	3¼ x 3¾	6.23
PM8410	360 0 360	120	5.0	3.0	6.3 CT	3.5	PM	3¾	3¹⁄₁₆ x 3¾	
PC8411							PC	4⅛	3⅝ x 4	7.47
PM8411	375 0 375	150	5.0	3.0	6.3 CT	4.5	PM	3⅞	3½ x 4⅛	
PC8412							PC	4¾	4 x 4	8.41
PM8412	400 0 400	200	5.0	3.0	6.3 CT	5.0	PM	3⅞	3¾ x 4⅛	10.55
PC8413	400 0 400	250	5.0	4.0	6.3 CT	5.0	PC	4¾	4 x 4½	
PC8414	600 0 600	200	5.0	3.0	6.3 CT	3.0	PC	4¾	4 x 4¼	10.61
					6.3	3.0				

POWER TRANSFORMERS FOR USE WITH 6AX5, 6X4, 6X5, OR SELENIUM RECTIFIERS

PS8415	125 ½-wave	15			6.3	0.6	PS	2	2⅛ x 1¾	1.85
PS8416	125 0 125	25			6.3	1.0	PS	2⅛	2⅛ x 1¾	2.34
PA8421	125 ½-wave	50			6.3	2.0	PA	2¼	3¾ x 2⅛	3.09
PC8417	220 0 220	50	6.3	0.6	25.2	0.5	PC	3¹⁄₁₆	2⅝ x 2⅝	4.35
PC8418							PC	3¹⁄₁₆	2⅝ x 2⅝	
	230 0 230	50			6.3	2.5				
PM8418							PM	2⅝	2½ x 3	3.85
PC8419							PC	3¹⁄₁₆	2⅝ x 2⅞	
	240 0 240	70			6.3	3.0				
PM8419							PM	2⅞	2½ x 3	4.41
PC8420							PC	3½	3 x 3½	
	260 0 260	90			6.3	4.0				
PM8420							PM	3½	2⅞ x 3¾	4.91

Autotransformers

Testing Autoformers—Designed especially for various service and test applications. Incorporates a convenient tap switch to permit variable voltages from 90 to 150 volts. It may be used to apply an overload voltage to amplifiers, radio receivers or other electronic devices being serviced, which will indicate and cause suspected parts to break down. Primary equipped with 6 ft. approved cord and plug. Secondary connected to female receptacle.

							Net Ea.
P-6287	40	230	115	K-2	3½	2¹¹⁄₁₆ x 2⅞	$5.59
P-5062	80	230	115	K	3⅝	3 x 3½	6.00
P-5063	100	230	115	K	4	3¼ x 3¼	6.79
P-5064	150	230	115	K	4⅛	3⅝ x 3⅝	7.85
P-5065	300	230	115	K	4¾	4 x 4¼	10.35
P-6141	500	230	115	K	4¾	4 x 5¼	13.57
P-6124	1000	230	115	FK	7¾	6½ x 6½	29.58
P-6299	150	115	150 140 130 120 110 100 90	KA	4	3¼ x 4¾	11.20

Straight Isolation

Part No.	Wattage	Primary*	Secondary	Mtg. Type	Height Overall	Base Area	Net Ea.
P-6410	50	115	115	K	3¹⁄₁₆	2¹⁵⁄₁₆ x 3⅛	$6.06
P-6160	100	125 115 105	115	KA	4¾	4 x 3⅝	11.17
P-6161	250	125 115 105	115	KA	4¾	4 x 5¼	21.01
P-6298	500	125 115 105	115	KA	7⅝	6¼ x 7¼	32.91
P-6125	1000	125 115 105	115	FK	7¾	7¾ x 6¼	44.57
P-6123	1500	125 115 105	115	FK	7¾	7¾ x 8½	53.81

Step-Down Isolation

Part No.	Wattage	Primary*	Secondary	Mtg. Type	Height Overall	Base Area	Net Ea.
P-6383	100	250 230 210	115	KA	4¾	4 x 3¾	12.23
P-6385	250	250 230 210	115	KA	4¾	4 x 5¼	19.81
P-6387	500	250 230 210	115	KA	6¼	6¼ x 7¼	33.97
P-6389	1000	250 230 210	115	FK	7¾	7¾ x 6¼	43.76
P-6390	1500	250 230 210	115	FK	7¾	7¾ x 8½	60.55

Vertical Blocking-Oscillator Transformers

Part No.	Turns Ratio Pri./Sec.	Height Overall	Base Area	Mtg. Type	Net Ea.
A-8111	1:4.2	1½	1½ x 2½	A	$1.59
A-8121	1:4.2	1¾	1½ x 2¹⁄₁₆	TD	2.03
A-8122	1:4.2	1⅞	1⅝ x 1⅝	TS	2.47
A-8124	Sec. #1 1:0.48 Sec. #2 1:1	1⅞	1⅝ x 2⅛	A	2.44
A-8125	1:4.2	1⅞	2⅛ x 1¾	A	1.59
A-8126	1:1.5	1¾	1½ x 2	S	1.62

Deflection Yokes

Part No	Coil Inductance in MH Horizontal	Coil Inductance in MH Vertical	Coil Resistance in Ohms Horizontal	Coil Resistance in Ohms Vertical	Max. Scan.	Unit Length	Net Ea.
DY-1A	8.3	50	13.5	66	53°	3	$4.65
DY-2A	10.3	50	14.5	66	70°	2¾	5.88
DY-8A	8.5	50	14.5	52.5	70°	2¾	5.88
DY-9A	13.5	50	17.5	53.5	70°	2¾	5.88
DY-10A	30.0	3.5	45	3.5	70°	2¾	5.88
DY-11A	20.0	50	31	50	70°	2¾	5.88
DY-12A	30.0	50	41	50	70°	2¾	5.88
DY-13A	12.5	48	15	52	90°	3	7.35
DY-14A	30.0	3.5	45	3.5	70°	2¾	6.03
DY-15A	25.0	50.0	35	50	70°	2¾	5.88
DY-16A	20	44.0	26	45	90°	3¼	6.74

TRANSFORMERS

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

STANCOR TRANSFORMERS

Smoothing Chokes

For D.C. Power Supplies. Inductance varies with the amount of D.C. flowing through the coil; therefore these units have been tested under uniform conditions. They are rated at 10 volts, 60 cycles with maximum D.C. in winding. Tolerance of minus 15%, plus 50% is maintained on all ratings.

Part No.	Rating Induc.	at	DCMA	D.C. Res. In Ohms	R.M.S. V. Insul.	Mtg. Type	Height Overall	Base Area	Net Ea.
C-1515	20.0 hy.	at	15 ma.	900	1500	A	1⅝	2⅞ x 1⅛	$1.29
C-1706	4.5 hy.	at	50 ma.	300	1500	A	1⅝	2⅜ x 1⅜	1.09
C-1707	7.0 hy.	at	50 ma.	350	1500	A	1⅝	2⅜ x 1⅜	1.15
C-1003	16.0 hy.	at	50 ma.	580	1500	A	2	3⅛ x 1¾	1.44
C-1708	13.0 hy.	at	65 ma.	500	1500	A	2	3⅛ x 1¾	1.79
C-1355	8.0 hy.	at	75 ma.	290	1500	L	2 1/16	2⅝ x 1¾	1.79
C-1002	15.0 hy.	at	75 ma.	400	1500	A	2¼	3⅜ x 2¼	3.18
C-1420	16.0 hy.	at	80 ma.	360	1500	C	3 1/16	2⅝ x 2⅜	2.00
C-1709	8.0 hy.	at	85 ma.	250	1500	A	2	3⅛ x 2	2.00
C-2305	5.0 hy.	at	100 ma.	300	1500	TD	2 11/16	2⅝ x 2 3/16	2.76
C-1001	10.5 hy.	at	110 ma.	225	3000	A	2⅝	4 x 2¼	2.62
C-2303	2.5 hy.	at	130 ma.	100	2000	A	2	3⅛ x 1¾	1.81
C-1421	7.0 hy.	at	140 ma.	165	3000	C	3 1/16	2⅝ x 2⅜	3.62
C-2304	2.3 hy.	at	150 ma.	60	1500	A	2	3⅛ x 1¾	1.88
C-2309	3.0 hy.	at	150 ma.	90	2000	A	2¼	3⅜ x 2¼	2.27
C-1710	7.0 hy.	at	150 ma.	200	1500	A	2⅝	4 x 2¼	2.91
C-1410	4.0 hy.	at	175 ma.	100	3000	C	3 1/16	2⅝ x 2⅜	3.70
C-2327	1.5 hy.	at	200 ma.	85	1500	A	1⅝	2⅛ x 1½	1.44
C-2325	2.0 hy.	at	200 ma.	60	1500	A	2¼	3⅜ x 2¼	2.26
C-1646	5.0 hy.	at	200 ma.	90	5000	C	4	3¼ x 3⅝	5.29
C-1411	4.5 hy.	at	200 ma.	80	3000	C	3 5/8	3 x 3⅛	4.20
C-1721	8.5 hy.	at	200 ma.	120	3000	NV	3 1/16	3⅛ x 2	4.82
C-1703	4.0 hy.	at	250 ma.	60	3000	BV	3½	2⅞ x 3⅛	5.35
C-1412	4.0 hy.	at	250 ma.	60	3000	C	3 5/8	3 x 3½	6.14
C-2326	1.0 hy.	at	300 ma.	43	1500	A	2¼	3⅜ x 2¼	2.56
C-2334	2.8 hy.	at	300 ma.	60	1500	A	2⅝	2¼ x 4	2.50
C-1722	8.0 hy.	at	300 ma.	80	3000	NV	4⅝	3⅜ x 3½	8.00
C-2308	8.0 hy.	at	300 ma.	80	3000	C	4⅝	4 x 3⅛	8.08
C-1413	8.0 hy.	at	300 ma.	80	5000	D	4⅝	4 x 4⅛	8.08
C-2328	0.8 hy.	at	375 ma.	25	1500	A	2½	3⅜ x 2	2.97
C-1414	7.5 hy.	at	400 ma.	60	5000	D	4⅝	4 x 5⅛	11.64
C-1415	6.0 hy.	at	500 ma.	75	7500	FS	7⅝	6½ x 7	26.92

Swinging Chokes

For input section of D.C. Power Supplies. Inductance varies with the amount of D.C. flowing through the coil; therefore these units have been tested under uniform conditions. Swinging chokes are rated at 10 volts, 60 cycles, from maximum to 10% of maximum D.C. in winding. Tolerance of minus 15%, plus 50% is maintained on all ratings.

Part No.	Min. Swg. Induc.	D.C. Res. In Ohms	Approx. Range of Induc. at DCMA		R.M.S. V. Insul.	Mtg. Type	Height Overall	Base Area	Net Ea.
C-1718	10 hy.	130	13.5-3.5 hy.	at 15-150	2000	C	3 1/16	2⅝ x 2½	3.75
C-1400	10 hy.	100	12-2	at 17.5-175	3000	C	3 1/16	2⅝ x 2⅝	4.17
C-1401	10 hy.	80	12-2	at 20-200	3000	C	3 5/8	3 x 3⅛	4.77
C-1645	10 hy.	90	12-2	at 20-200	5000	C	4	3¼ x 3⅜	5.47
C-1702	10 hy.	60	12-2	at 25-250	3000	BV	3½	2⅞ x 3⅛	5.47
C-1402	10 hy.	60	12-2	at 25-250	3000	C	3 5/8	3 x 3½	6.14
C-1720	16 hy.	80	20-4	at 30-300	3000	NV	4⅝	3¾ x 3½	7.82
C-2307	16 hy.	80	20-4	at 30-300	3000	C	4⅝	4 x 3⅞	8.91
C-1403	16 hy.	80	20-4	at 30-300	5000	D	4⅝	4 x 4⅛	7.94
C-1404	14 hy.	60	17-3	at 40-400	5000	D	4¾	4 x 5⅛	11.64
C-1405	12 hy.	75	16-4	at 50-500	7500	FS	7⅝	6½ x 7	23.58

Smoothing Chokes

For use in A.C.-D.C. Power Supplies. Inductance varies with the amount of D.C. flowing through the coil; therefore these units have been testd under uniform conditions. Filter chokes are rated at 10 volts, 60 cycles, with maximum D.C. in winding. Tolerance of minus 15%, plus 50% is maintained on all ratings.

Part No	Rating Induc at DCMA			D C Res In Ohms	R M S V Insul	Mtg Type	Height Overall	Base Area	Net Ea.
C-1080	3 5 hy	at	50 ma	200	1500	A	1 5/8	2 3/8 x 1 1/2	1.26
C-1325	5 0 hy	at	50 ma	250	1500	A	1 5/8	2 3/8 x 1 1/2	1.35
C-1277	7 0 hy	at	50 ma	300	1500	A	1 5/8	2 3/8 x 1 1/2	1.50
C-1723	4 5 hy	at	50 ma	325	1500	A	1 7/16	2 3/8 x 1 3/8	1.18
C-1227	7 0 hy	at	50 ma	350	1500	A	1 5/8	2 3/8 x 1 1/2	1.47
C-1229	8 5 hy	at	50 ma	400	1500	A	1 5/8	2 3/8 x 1 1/2	1.29
C-1233	8 0 hy	at	50 ma	450	1500	A	1 5/8	2 3/8 x 1 1/2	1.32
C-1215	9 0 hy	at	50 ma	500	1500	A	1 5/8	2 3/8 x 1 1/2	1.21

Plate Transformers

D.C. output rated CCS at load terminals of single-section reactor-input filter, ICAS with single-section capacitor-input filter.

Part No	Primary A C Volts	Secondary A C Volts	D C Output Volts	D C Output MA	Type Filter	Rectifier	Height	Base Area	Net Ea.
PC8301	117	415 0 415	300	200	Reactor Input	5U4G	4	3¼ x 3 3/16	$7.09
			425	160	Capacitor Input*	5U4G			
PC8302	117	515 0 515	385	235	Reactor Input	5U4G	4 1/16	3⅜ x 4 1/16	9.08
			500	200	Capacitor Input*	5R4GY			
PC8303	117	665 0 665	500	250	Reactor Input	5R4GY	4¾	4 x 4 1/16	11.50
			750	200	Capacitor Input*	5R4GY			
PC8304	117	750 0 750	600	265	Reactor Input	2-5R4GY	4¾	4 x 4 7/16	12.88
			850	200	Capacitor Input*	5R4GY			
PC8305	117	920 0 920	750	250	Reactor Input	2-5R4GY	4¾	4 x 5	13.43
			1000	200	Capacitor Input*	5R4GY			
PC8306†	117	920 0 920	750	150	Reactor Input	5R4GY	4¾	4 x 5	13.63
			1100	125	Capacitor Input*	5R4GY			
		500 0 500	380	150	Reactor Input	5U4G			
			550	125	Capacitor Input*	5U4G			

†Tapped for use with dual rectifier-filter systems to deliver two rated outputs simultaneously.

*Capacitor input rating is for intermittent duty.

Vertical Deflection Output Transformers

Part No.	Turns Ratio Pri. Sec.	Primary Impedance*	D.C. Res. In Ohms Pri.	D.C. Res. In Ohms Sec.	Height Overall	Base Area	Mtg. Type	Net Ea.
A-8112	10:1	18,000 Ω @ 12 DCMA	1300	10	2	1⅜ x 3⅛	A	$2.56
A-8113	8.8:1	16,500 Ω @ 10 DCMA	700	12	2	1⅜ x 3⅛	A	2.62
A-8115	10:1	19,000 Ω @ 13 DCMA	600	7	3 1/16	2½ x 2½	NV	3.88
A-8116	10:1	18,000 Ω @ 10 DCMA	525	7	3 1/16	2½ x 2½	NV	3.56
A-8123§	11.4:1	17,000 Ω @ 20 DCMA	1200	11	2	1⅜ x 3⅛	A	2.38
A-8140	44:1	11,000 Ω @ 20 DCMA	400	0.3	3 1/16	2½ x 2½	NV	4.03
A-8141§	18:1	30,000 Ω @ 10 DCMA	1650	4.5	2⅛	3⅜ x 2⅛	A	3.44
A-8142	8:1	19,000 Ω @ 13 DCMA	540	10.5	2⅛	2½ x 3	NH	3.00
A-8143	10:1	14,000 Ω @ 15 DCMA	625	14	2⅛	2⅛ x 3⅝	A	2.56
A-8144	9:1	9,500 Ω @ 30 DCMA	540	15	2⅛	1⅜ x 3⅝	A	2.26
A-8145	9:1	11,000 Ω @ 19 DCMA	540	14	2⅝	2½ x 2½	N1	3.38
A-8146§	6.9:1	6,000 Ω @ 15 DCMA 4,700 Ω @ 50 DCMA	375	10	2	1⅞ x 3¼	A	2.35
A-8147§	6:1	3,200 Ω @ 40 DCMA	300	9	2	1⅜ x 3¼	A	2.05
A-8148§	8:1	6,000 Ω @ 15 DCMA 4,700 Ω @ 50 DCMA	375	6.5	2	1½ x 3¼	A	2.50
A-8149§	6.9:1	11,500 Ω @ 20 DCMA	330	8.5	2	1⅝ x 3¼	A	2.15

Filament Transformers With Single Secondary

Part No.	Secondary Volts		Secondary Amperes	R.M.S. V Insul.	Primary Volts‡	Mtg. Type	Height Overall	Base Area	Net Ea.
P-4026	2.5		1.5	2,500	117	A	1⅝	2⅞ x 1⅛	$2.16
P-4082	2.5	CT	2.5	2,500	117/107	TD	2 11/16	2¾ x 2 1/16	4.47
P-6133	2.5	CT	5.0	7,500	117	S	2 15/16	3 1/16 x 2¼	3.35
P-4083	2.5	CT	6.0	2,500	117/107	C	3 1/16	2⅝ x 2⅜	4.26
P-3024	2.5	CT	10.0	2,500	117/107	C	3 1/16	2⅝ x 2⅜	4.41
P-3060	2.5	CT	10.0	10,000	117	BV	3½	2⅞ x 2½	4.06
P-3025	2.5	CT	10.0	10,000	117/107	FA	5⅛	4¼ x 8½	13.15
P-3026	5.0	CT	3.0	2,500	117/107	C	3 1/16	2⅝ x 2⅜	4.41
P-4088	5.0	CT	3.0	2,500	117	BV	3⅛	2½ x 2½	3.20
P-6467	5.0	CT	3.0	2,500	117	A	2	3 1/16 x 2	2.82
P-3062	5.0	CT	6.0	2,500	117	BV	3½	2½ x 2½	3.73
P-5000	5.0	CT	6.0	2,500	117/107	C	3 1/16	2⅝ x 2⅞	5.12
P-6135	5.0	CT	10.0	2,500	117	NV	3½	2½ x 2⅞	4.15
P-4086	5.0	CT	14.0	10,000	117/107	FA	5½	4⅝ x 8½	14.95
P-6302	5.0	CT	22.0	10,000	117/107	FA	5½	4⅝ x 8½	16.34
P-6468	5.0	CT	30.0	2,500	117/107	D	4⅝	3 1/16 x 3¾	9.55
P-6305	5.0	CT	30.0	10,000	117/107	FA	5½	4⅝ x 10	20.39
P-6137	5.25	CT	13.0	2,500	117	NV	3¾	3⅛ x 3¼	6.85
P-6134	6.3	CT	1.2	3,000	117	A	1⅝	2 7/16 x 1⅝	1.71
P-8190	6.3		1.2	5,000	117	A	2	3⅛ x 1¾	2.23
P-8191	6.3		1.2	5,000	6.3	A	2	3¼ x 1¾	2.41
P-5014	6.3	CT	3.0	2,500	117	BV	3½	2½ x 2½	3.06
P-6466	6.3	CT	3.0	2,500	117	A	2	3 1/16 x 2	2.73
P-4019	6.3	CT	4.0	2,500	117/107	C	3 1/16	2⅝ x 2¾	4.23
P-3064	6.3	CT	6.0	2,500	117	BV	3½	2½ x 2⅞	3.67
P-4089	6.3	CT	6.0	2,500	117/107	C	3 5/8	3 x 3⅛	4.85
P-6308	6.3	CT	10.0	2,500	117/107	NV	3½	2⅞ x 2¾	4.41
P-6309	6.3	CT	20.0	2,500	117/107	NV	4⅛	3¾ x 3	8.32
P-5015	7.5	CT	4.0	2,500	117	BV	3½	2½ x 2⅞	3.73
P-4091	7.5	CT	5.0	2,500	117/107	C	3 5/8	3 x 3	5.91
P-6138	7.5	CT	8.0	2,500	117	NV	3⅞	3½ x 2⅞	5.41
P-5016	10.0	CT	4.0	2,500	117	BV	3½	2⅞ x 2⅝	4.50
P-4096	10.0	CT	5.0	2,500	117/107	C	4	3¼ x 3¼	5.35
P-6139	10.0	CT	8.0	2,500	117	NV	3⅞	3½ x 3½	5.47
P-4097	10.0	CT	8.0	2,500	117/107	C	4	3¼ x 3⅝	5.94
P-5002	10.0	CT	12.0	7,500	117/107	FA	5⅛	4⅜ x 8½	15.72
P-3020	11.0	CT	10.0	2,500	117/107	C	4⅜	4 x 3½	8.78
P-8130	12.6	CT	2.0	1,500	117	A	2	3¼ x 2	3.03
P-6469	25.2		1.0	1,500	117	A	2	3¼ x 2	2.88

‡All Primary Windings for 60 cycle operation.

Filament Transformers With Multiple Secondary

Part No.	Secondary Volts		Secondary Amperes	R.M.S. V. Insul.	Primary Volts‡	Mtg. Type	Height Overall	Base Area	Net Ea.
P-6144	2.5	CT	3.5	2,500	117	C	3 5/8	3 x 3½	6.88
	5.0	CT	3.0	2,500					
	6.3	CT	3.0	2,500					
P-6338	2.5		3.0	2,500	117	NV	3½	2⅞ x 2¾	6.53
	5.0		3.0	2,500					
	5.0	CT	2.0	2,500					
	6.3	CT	3.0	2,500					
P-5009	5.0	CT	3.0	2,500	117/107	C	4	3¼ x 3¼	7.85
	6.3	CT	6.0	2,500					
P-5008	5.0	CT	4.0	2,500	117/107	C	3⅝	3 x 3¼	6.91
	6.3	CT	3.6	2,500					
P-4022	5.0	CT	6.0	2,500	117/107	C	4	3¼ x 3⅝	7.38
	6.3	CT	6.0	2,500					
P-6333	5.0		3.0	2,500	117	BH	3½	2⅞ x 3⅞	6.53
	5.0		3.0	2,500					
	6.3	CT	4.0	2,500					
	7.5/6.3	CT	3.0	2,500					

Tube Checker Multi-Taped Filament Transformer

PART NO.	SECONDARY VOLTS	PRIMARY VOLTS	MTG. TYPE	HEIGHT OVERALL	BASE AREA	Net Ea.
P-1834-3	1.1/ 1.4/ 1.5/ 2.0/ 2.5/ 3.0/ 3.3/ 5.0/ 6.3/ 7.0/ 7.5/ 12/ 25/ 30/ 35/ 50/ 70/ 85/ 110/ 117	125/115/105	Q	2⅝	4 x 2	$8.35

Microphone, Pick-up or Line-to-Grid

Part No.	Application	Impedance In Ohms	Turns Ratio	Mtg. Type	Height Overall	Base Area	Net Ea.
A-4705	S. B. Mic to S. Grid	Pri—200 70	1:20	A	1⅝	2¼x1¾	$1.88
A-4706	S. B. Mic to S. Grid	Sec—80,000 Pri—100 Sec—80,000	1:24.5	A	1⅝	2¼x1¾	1.91
A-4708	D. B. Mic to S. Grid	Pri—200 CT Sec—57,000	1:17	J	2	2½x1⅝	2.39
A-4742	S. B. Mic to P. P. Grids	Pri—100 Sec—400,000 CT	1:64	S	2⅝	2⅞x1¾	2.76
A-4743	S. B. Mic to P. P. Grids	Pri—100 Sec—400,000 CT	1:64	VE	2⅝	2⅞x2⅛	3.79
A-4747	S. B. Mic or Low Imp. Line to S. Grid	Pri—70 Sec—1,300,000	1:137	VE	1⅞	1⅝x1¼	2.12
A-4351‡	Mic or Line to S. Grid	Pri—500 /333 /200 /125/50 Sec—89,000	1:13.3	TD	2 11/16	2¾x2 3/16	4.08
A-4352‡	Mic or Line to P. P. Grids	Pri—500 /333 /200 /125/50 Sec—89,000	1:13.3	Q	2	3¼x1¾	3.56
A-4726	Line and High Imp. to P.P. Grids	Pri—200 CT 50 and 2,500 Sec—100,000	1:22.4 1:6.3	TD	2 11/16	2¾x2 3/16	4.73
A-4709	Dynamic Micor Pickup to S. Grid	Pri—30 /15 /8 /4 Sec—106,000	1:60	TD	2 11/16	2¾x2 3/16	4.59

Microphone or Line-to-Line

Part No.	Impedance In Ohms	Mtg. Type	Height Overall	Base Area	Net Ea.
A-4380‡	Pri—500 /333 /200 /125 50, Sec—500 333 200 125/50	Q	2	3⅛ x 1¾	$3.82
A-4407‡†	Pri—500 /333 /200 /125/50 Sec—500 /333 200 125 50	D	3 1/16	2½ x 3¼	7.70

Tube to Line

Part No.	Application	Impedance in Ohms	Max. Pri. D.C	Audio Watts	Mtg. Type	Height Overall	Base Area	Net Ea.
A-3841	Single Plate to Line	Pri—7,000 /6,000 /5,000/4,000 2,500 Sec—500	60 ma	10	J	2 11/16	3 3/16 x 2½	$4.41
A-3842	P. P. Plates to Line	Pri—14,000 /12,000/10,000/ 9,000 CT Sec—500	55 ma	10	J	2 11/16	3 3/16 x 2½	4.59
A-4770	Single Plate to Line	Pri—7,000/6,000/5,000/4,000 2,500 Sec—500	60 ma	20	J	3⅛	3 3/16 x 2½	4.65
A-3250	Single Plate or P. P. Plates to Line	Pri—20,000 /10,000 /5,000 Pri—20,000 CT Sec—500 /333 /200 /125/50	15 ma	—	Q	2	3¼ x 1¾	2.91
A-3315	Single Plate or P. P. Plates to Line	Pri—20,000 /10,000 /5,000 Pri—20,000 CT Sec—500 /333 200 125/50	35 ma	—	D	3 1/16	2⅝ x 2⅝	6.64

STANCOR TRANSFORMERS

Single Plate to Single Grid Transformers

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg. Type	Height Overall	Base Area	Net Ea.
A-52-C	1:2	1/2 x 1/2	10 ma	A	1 3/16	2 3/16 x 1 3/16	$1.62
A-62-C	1:2	5/8 x 5/8	10 ma	A	1 5/8	2 7/16 x 1 1/2	1.82
A-4745	1:2	3/4 x 1	10 ma	TD	2 11/16	2 3/4 x 2 3/16	5.00
Recommended for use in super-regenerative circuits. Has a static shield between pri. and sec. windings.							
A-53-C	1:3	1/2 x 1/2	10 ma	A	1 3/16	2 3/16 x 1 3/16	1.59
A-63-C	1:3	5/8 x 5/8	10 ma	A	1 5/8	2 7/16 x 1 1/2	1.79
A-73-C	1:3	3/4 x 3/4	10 ma	A	2	3 1/16 x 1 3/16	2.23
A-4719	1:3	3/4 x 1	10 ma	TD	2 11/16	2 3/4 x 2 3/16	4.38
A-103-C	1:3	1 x 1	10 ma	A	2 5/8	4 x 2 3/16	4.44
A-64-C	1:4	5/8 x 5/8	10 ma	S	2	2 3/16 x 1 3/4	2.15
A-4206	1:3.25	1 x 1	15 ma	C	3 1/16	2 5/16 x 2 5/8	5.79

Single Plate to Push-Pull Grids

A-53	1:3	1/2 x 1/2	10 ma	A	1 3/16	2 3/4 x 1 1/2	$1.56

Multi-Purpose Interstage-Split Secondaries

May be used as single plate to single grid, single plate to push-pull grid, or push-pull plate to push-pull grid interstage transformers. Overall ratios are 1:3, but primaries are center-tapped and secondaries have split windings, providing ratios of 1:1, 3:1 and 6:1 in either step-up or step-down applications.

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg. Type	Height Overall	Base Area	Net Ea.
A-4774	1:3	3/4 x 3/4	10 ma	S	2 5/16	2 7/16 x 1 3/16	$2.70
A-4773	1:3	3/4 x 1	10 ma	TD	2 11/16	2 3/4 x 2 3/16	4.59

Push-Pull Plates to Push-Pull Grids

A-4711	1:1	5/8 x 5/8	10 ma	A	1 5/8	2 7/16 x 1 1/2	2.15
A-4155	1:3	3/4 x 3/4	10 ma	L	2 1/16	2 5/16 x 1 3/4	3.85

Push-Pull Plates to Parallel or Push-Pull Grids

A-4208	1:1.4	1 x 1	15 ma	C	3 1/16	2 5/16 x 2 5/16	4.91
A-4777	1:1.5	1 x 1	10 ma	C	3 1/16	2 5/16 x 2 5/8	5.59

Single Plate to Push-Pull Grids

Part No.	Pri. Impedance In Ohms	Pri. 1/2 Sec. Ratio	Max. Pri. D.C.	Core	Mtg. Type	Height Overall	Base Area	Net Ea.
A-4713	10,000	2:1	30 ma	5/8 x 5/8	A	1 5/8	2 7/16 x 1 1/2	$1.76
A-4752	10,000	2 1.5/1:1	40 ma	3/4 x 3/4	A	2	3 1/16 x 1 3/16	2.59
A-4722	10,000	2:1	30 ma	3/4 x 1	TD	2 11/16	2 3/4 x 2 3/16	3.72
A-4292	10,000	2.5:1	20 ma	5/8 x 5/8	A	1 5/8	2 7/16 x 1 1/2	1.86
A-4723	10,000	3:1	30 ma	5/8 x 5/8	A	1 5/8	2 7/16 x 1 1/2	1.76
A-4721	10,000 to 22,500	3 2:1	25 ma	3/4 x 1	TD	2 11/16	2 3/4 x 2 3/16	4.17
A-4210	1,500 to 5,000	3:1	40 ma	1 x 1	C	3 3/16	2 5/16 x 2 5/16	4.38
A-4702	1,500 to 5,000	5:1	80 ma	1 x 1	C	3 3/16	2 5/16 x 2 5/16	4.32

Push-Pull Plates to Push-Pull Grids

Part No.	Pri. Imp. (P-P) In Ohms	Pri. 1/2 Sec. Ratio	Max. Pri. D.C.	Core	Mtg. Type	Height Overall	Base Area	Net Ea.
A-4208*	20,000 to 30,000	2.8:1	15 ma	1 x 1	C	3 3/16	2 5/16 x 2 5/16	4.91
A-4701*	20,000	3:1	25 ma	1 x 1	C	3 3/16	2 5/16 x 2 5/16	5.64
A-4212	1,500 to 5,000	3.2:1	50 ma	1 x 1	C	3 3/16	2 5/16 x 2 5/16	4.59
A-4416*	3,000 to 10,000	5:1	40 ma	1 x 1	C	3 3/16	2 5/16 x 2 5/16	5.12
A-4703*	3,000 to 10,000	5:1	95 ma	1 1/4 x 1 1/4	C	3 5/16	3 x 3 1/2	5.59

*These units have split secondaries for individual bias adjustment and/or use of inverse feedback.

Intercommunicator and Transceiver

Part No.	Application	Impedance In Ohms	Max. Watts	Mtg. Type	Height Overall	Base Area	Net Ea.
A-4744	Intercom. input	Pri—4 Sec—25,000	—	VE	1 3/8	2 3/4 x 1 1/2	$1.65
A-4748	Intercom. input	Pri—45 or 50 Sec—50,000	—	A	1 3/16	2 5/16 x 1 1/4	1.82
A-3833	Transceiver input mic and plate to grid	Pri—200 and 5,000 Sec—50,000	5	A	1 5/8	2 7/16 x 1 1/2	2.53
A-3836	Transceiver output. Plate to low or high impedance phones.	Pri—10,000 Sec—50 and 2,000	5	A	1 5/8	2 7/16 x 1 1/2	2.47
A-4749	Telephone Patch Circuit	Pri—10,000 Sec—500	—	TD	1 15/16	1 11/16 x 2 1/4	3.82

70.7 Volt Line to Voice Coil

Part No.	Power Steps In Watts	Impedance In Ohms	Mtg. Type	Height Overall	Base Area	Net Ea.
A-8102	8 4 2 1 0.5	Pri—625 1,250 2,500 5,000 10,000 Sec—4 8 16	J	2	1 5/8 x 2 7/16	$2.65
A-8103	16 8 4 2 1 0.5	Pri—312.5 625 1,250 2,500 5,000 10,000 Sec—4 8 16	J	2 3/4	2 1/4 x 3 1/4	3.70
A-8105	5 2.5 1.25, .62 .31	Pri—1,000 2,000 4,000 8,000 16,000 Sec—4 8	Q	1 3/8	2 5/8 x 1 1/4	1.95

Plate Transformers

ALL PRIMARY WINDINGS FOR 60 CYCLE OPERATION

Part No.	Pri. Volts	Sec. A.C. Volts At Plate	D.C. Volts	D.C. MA CCS	D.C. MA ICAS	Mtg. Type	Height Overall	Base Area	Net Ea.
P-8040	115	500/40-0-500	400	300	375	C	4 3/4	4 x 4 1/2	$12.15
P-8041	115	615/520/40-0-520/615	500	250	310	C	4 3/4	4 x 5 1/8	13.14
P-8042	115	770/510/40-0-510/770	600	300	375	C	4 3/4	4 x 6 3/4	19.35
P-8043	115	950/750/40-0-750/950	750	300	375	FS	7 5/8	6 1/4 x 8	35.97
P-8025	115	1230/940-0-940/1230	1000	400	500	FS	7 5/8	6 1/4 x 8 3/4	45.75
P-8026	115	1475/1175-0-1175/1475	1250	300	375	FS	7 3/4	7 3/8 x 8 1/4	43.50
P-8027	115	1510/1210-0-1210/1510	1250	500	625	FS	7 3/4	7 3/8 x 9	51.45
P-8028	115	1740/1460-0-1460/1740	1500	300	375	FS	7 3/4	7 3/8 x 8 1/2	46.05
P-8029	115-230	1775/1500-0-1500/1775	1500	500	625	FS	11 1/4	7 3/8 x 8 3/4	70.77
P-8033	115-230	2375/2065-0-2065/2375	2000	500	625	FS	11 1/4	7 3/8 x 9 1/2	87.90
P-8034	115-230	2900/2385-0-2385/2900	2500	300	375	FS	11 1/4	7 3/8 x 8 3/4	85.50
P-8035	115-230	2950/2375-0-2375/2950	2500	500	575	FS	11 3/4	7 3/8 x 9 3/4	93.30

Universal Output Transformers

Part No.	Application	Max. Pri. D.C.	Audio Watts	Mtg. Type	Height Overall	Base Area	Net Ea.
A-3856	Single or P. P. Plates (4,000 to 14,000 Ω) to V. C.	35 ma.	4	Q	1 3/8	2 3/4 x 1 3/4	$1.71
A-3822*	Single Plate (7,000 to 10,000 Ω) to V. C.	35 ma	4	Q	1 3/8	2 3/4 x 1 3/4	1.62
A-3848§	Single Plate (7,000 to 16,000 Ω) to V. C.	10 ma	5	Q	1 3/8	2 3/4 x 1 3/4	2.29
A-3823	Single or P. P. Plates (4,000 to 14,000 Ω) to V. C.	40 ma	8	Q	1 3/8	2 7/16 x 1 1/2	1.82
A-3850	Single or P. P. Plates (4,000 to 14,000 Ω) to V. C.	40 ma	8	J	2	2 5/16 x 1 1/2	2.12
A-3825§	Single Plate (1,500 to 4,500 Ω) to V. C.	75 ma	8	Q	2	3 1/4 x 1 5/8	2.32
A-3824§	Single or P. P. Plates (6,000 to 10,000 Ω) to V. C.	75 ma	8	Q	2	3 1/4 x 2	2.91
A-3849	Single Plate (1,500 to 10,000 Ω) to V. C.	55 ma	10	Q	1 3/8	2 7/16 x 1 1/2	1.85
A-3880	P. P. Plates (4,000 to 14,000 Ω) to V. C.	40 ma ea. 1/2	15	Q	2 1/4	3 3/4 x 2 1/4	3.50
A-2855	P. P. Plates (4,000 to 14,000 Ω) to V. C.	50 ma ea. 1/2	15	L	2 1/16	2 5/16 x 1 3/4	3.12
A-3890	P. P. Plates (4,000 to 14,000 Ω) to V. C.	50 ma ea. 1/2	15	TD	2 11/16	2 3/4 x 2 3/16	4.79
A-3852	P. P. Plates (4,000 to 14,000 Ω) to V. C.	40 ma ea. 1/2	18	J	2 5/16	2 7/16 x 2	2.35
A-3870	P. P. Plates (4,000 to 14,000 Ω) to V. C.	50 ma ea. 1/2	18	Q	2	3 1/4 x 2	2.91
A-3830	P. P. Plates (3,000 to 10,000 Ω) to V. C.	60 ma ea. 1/2	20	J	2 11/16	3 5/16 x 2 1/4	3.17

*Secondary impedance 0.7, 1, 1.4, 2, 2.8, 4 ohms. §Secondary impedance 1, 2, 4 ohms.
†Dimensions with bracket. ‡Line to Line or V.C.

Single Plate to Voice Coil

Part No.	Application	Max. Pri. D.C.	Audio Watts	Mtg. Type	Height Overall	Base Area	Net Ea.
A-3865	1,500 Ω to 6 4 2 Ω	55 ma	5	A	1 3/16	2 3/16 x 1 3/16	$1.94
A-3332	2,000 Ω to 3 2 Ω	50 ma	3	A	1 3/16	2 1/16 x 1	.94
A-3876	2,000 Ω to 4 Ω	60 ma	5	A	1 3/16	2 3/16 x 1 3/16	1.12
A-3328	4,000 Ω to 3 5 Ω	10 ma	3	A	1 3/16	2 1/16 x 1	1.21
A-2203	4,000 Ω to 8 Ω	40 ma	5	A	1 3/16	2 7/16 x 1 5/8	2.18
A-3877	5,000 Ω to 4 Ω	40 ma	5	A	1 3/16	2 3/16 x 1 3/16	1.18
A-3337	5,000 Ω to 6-8 Ω	40 ma	10	S	2 5/16	2 1/16 x 1 3/4	1.79
A-3310	5,000 Ω to 500 15 8 4 Ω	55 ma	20	C	3 1/16	2 5/16 x 2 5/16	4.73
A-3878	7,000 Ω to 4 Ω	30 ma	5	A	1 3/16	2 3/16 x 1 3/16	1.20
A-2313	7,000 Ω to 8 Ω	40 ma	10	A	2	3 1/16 x 1 3/4	2.00
A-8114	7,600 Ω to 3 2 Ω	32 ma	5	A	1 3/16	2 3/16 x 1 3/16	1.56
A-3329	8,000 Ω to 3 5 Ω	10 ma	3	A	1 3/16	2 1/16 x 1	1.12
A-3879	10,000 Ω to 4 Ω	30 ma	5	A	1 3/16	2 3/16 x 1 3/16	1.12
A-3881	15,000 Ω to 4 Ω	10 ma	5	A	1 3/16	2 3/16 x 1 3/16	1.26
A-3327	25,000 Ω to 4 Ω	5 ma	5	A	1 3/16	2 3/16 x 1 3/16	1.44

Push-Pull Plates to Voice Coil

Part No.	Application	Max. Pri. D.C.	Audio Watts	Mtg. Type	Height Overall	Base Area	Net Ea.
A-3306	P.P. Par. 2,500 Ω to 500 15 8 4 Ω	100 ma	25	C	3 5/16	3 x 3 1/16	6.44
A-3301	3,000 Ω to 500 15 8 4 Ω	55 ma	30	C	3 5/16	3 x 3 1/16	6.00
A-3802	3,800, 3,300 Ω to 500 250 8 4 Ω	125 ma	75	C	4 3/4	4 x 3 7/16	8.38
A-5528	4,000 Ω to 500 15 8 4 Ω	65 ma	8	C	3 5/16	2 5/16 x 2 1/16	4.70
A-3851§	4,400 Ω to 500 250 15 8 4 Ω	70 ma	30	C	3 5/16	3 x 3 1/16	6.35
A-3872	5,000 Ω to 15 8 4 Ω	75 ma	18	TD	2 11/16	2 5/16 x 2 3/16	4.12
A-3800	5,000 Ω to 500 250 15 8 4 Ω	80 ma	30	C	3 5/16	3 x 3 1/16	5.12
A-3307	6,000 Ω to 500 15 8 4 Ω	100 ma	30	C	3 5/16	3 x 3 1/16	6.64
A-3801	6,600 Ω to 500 250 15 8 4 Ω	150 ma	35	C	4	3 1/16 x 3 1/16	8.14
A-3885	9,000 Ω to 500 250 15 8 4 Ω	150 ma	35	C	4	3 1/16 x 3 1/16	7.47
A-3304	10,000 7,000 Ω to 500 15 8 4 Ω	60 ma	25	C	3 3/16	2 5/16 x 2 5/16	5.67
A-3311	10,000 Ω to 500 15 8 4 Ω	70 ma	25	C	3 5/16	3 x 3 1/16	5.35
A-3831	10,000 Ω to 8 4 2 Ω	40 ma	5	A	1 5/8	2 7/16 x 1 1/2	1.97
A-3335	10,000 Ω to 6-8 3 2-4 Ω	40 ma	10	S	2 5/16	2 1/16 x 1 3/4	2.59
A-3839	10,000 Ω to 2,000 and 15 8 4 Ω	30 ma	10	TD	2 11/16	2 3/4 x 2 3/16	4.26
A-2312	14,000 Ω to 4 Ω	40 ma	10	A	2 5/16	2 1/16 x 1 3/4	2.06
A-3496	14,000 Ω to 4 Ω	25 ma	5	A	1 3/16	2 1/16 x 1 3/16	1.88
A-3303	14,000 Ω to 500 15 8 4 Ω	55 ma	20	C	3 5/16	2 5/16 x 2 5/16	6.44
A-3857	25,000 Ω to 4 Ω	10 ma	5	A	1 3/16	2 1/16 x 1 3/16	1.50

Line to Voice Coil

Part No.	Impedance In Ohms	Audio Watts	Mtg. Type	Height Overall	Base Area	Net Ea.
A-8101	Pri 500 Sec 6-8 3.2	5	Q	1 3/16	2 1/16 x 1 3/16	$1.29
A-3883	Pri 500 Sec 15 8 6 4	25	J	2 5/16	2 7/16 x 1 3/4	2.76
A-3882	Pri 500 333 250 Sec 15 8 4	25	D	3 5/16	2 5/16 x 3 1/2	5.47
A-3818	Pri 1,500 1,000 500 Sec 15 8 4	25	J	3 1/16	3 5/16 x 2 1/16	3.20
A-7947	Pri 2,000 1,500 1,000 500 Sec 6-8 3 2	8	Q	1 3/16	2 11/16 x 1 9/16	1.88
A-7949	Pri 2,000 1,500 1,000 500 Sec 6-8 3 2	12	J	2 5/16	2 x 1 13/16	2.50
A-3820	Pri 2,000 1,500 1,000 500 Sec 15 8 4	40	D	4 5/16	3 5/16 x 4 1/2	8.94
A-8104	Pri 3,000 2,000 1,500 1,000 500 Sec 16 8 4	10	J	2 5/16	2 11/16 x 1 3/4	3.59
A-3838	Pri 500 Sec 250 166 125 100 84 This auto transformer is designed to operate one or more speakers in series across a 500 ohm line or to match unequal lines.	30	B	3 1/16	2 1/2 x 2 1/4	4.32
A-3837	Pri 500 1,000 1,500 2,000 2,500 3,000 Sec 06 to 8 ohms when primary is 500 ohms, 12 to 16 ohms when primary is 1,000 ohms, etc. This unit is designed to operate one or more speakers in parallel across a 500 ohm line.	15	J	2 5/16	2 7/16 x 2	3.23

High Fidelity Output Transformers

These Stancor output transformers combine the most advanced design and manufacturing practices to provide outstanding audio response at low cost. The Stancor-Williamson amplifier, using high-fidelity output A-8054, is typical of the exceptional results that can be obtained with these units. They are designed to insure an extremely low level of intermodulation distortion over the entire frequency range and at any power level within the rating of the transformer.

Type "C", an upright shell mounting, is used for all units.

Part No.	Pri. Imp. (P-P) In Ohms	Sec. Imp. in Ohms*	Max. Pri. D.C. Per Half	Max. Audio Watts	Height Overall	Base Area	Net Ea.
A-8050	1500	8, 16	200	50	4 5/16	3 5/16 x 4 1/4	$12.02
A-8051	2500	8, 16	150	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8052	3000	8, 16	175	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8053	5000	8, 16	150	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8056	6600	8, 16	125	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8054	9000	8, 16	100	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8060	1500	500	200	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8061	2500	500	150	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8062	3000	500	175	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8063	5000	500	150	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8066	6600	500	125	50	4 5/16	3 5/16 x 4 1/4	42.02
A-8064	9000	500	100	50	4 5/16	3 5/16 x 4 1/4	12.02
A-8072*	7600	4, 8, 16	100	25	4 5/16	3 5/16 x 4 1/4	14.20

*Where more than one secondary impedance is shown, only one value is to be used at any time.
*Primary provided with screen taps for Ultra-Linear application.

TRANSFORMERS

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

THORDARSON TRANSFORMERS

THORDARSON

AGF

BAV-BAH

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GGV

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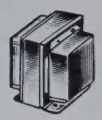

JUV

PUV

TAV

WTV

POWER TRANSFORMERS

All primaries are 117 volt 50/60 cycle. These units are designed to RETMA standards and color code.

FULL WAVE—SINGLE HIGH VOLTAGE SECONDARY

Type No.	Case Style	Note	Plate Supply AC Volts	Plate Supply DC MA	Rect. Fil. Volts	Rect. Fil. Amps.	Other Fils. Volts	Other Fils. Amps.	Mtg. Centers, In	Height Inches	Base Area Inches	Weight Lbs.	Net Each
22R38	AGF	7, 8	180–0–180	42	6.3	2.8			1¾ x 2¼	2¾	2⅝ x 2¼	1.8	$ 5.10
24R00	AGF	7	240–0–240	40	5.0	2.0	6.3 CT	2.0	2 x 2½	2½	3 x 2¾	2.0	4.50
24R00U	GGV		240–0–240	40	5.0	2.0	6.3 CT	2.0	1⅝ x 2	3⅛	2⅝ x 2¼	2.0	4.50
22R00	AGF	7	250–0–250	40	5.0	2.0	6.3 CT	2.0	2 x 2½	2½	3 x 2½	1.75	4.80
22R08	AGF	7	250–0–250	40	5.0	2.0	2.5 CT	4.0	2 x 2½	2½	3 x 2½	1.75	4.80
26R31U	GGV		260–0–260	90	6.3	3.5			2¼ x 2	3⅛	2⅝ x 3⅛	3.5	4.50
22R01	AGF	7	275–0–275	50	5.0	2.0	6.3 CT	2.5	2 x 2½	2½	3 x 2½	2.25	4.80
22R09	AGF	7	275–0–275	50	5.0	2.0	2.5 CT	7.5	2 x 2½	2½	3 x 2½	2.25	5.40
22R30	GGV		275–0–275	50	5.0	2.0	6.3 CT	2.5	2 x 2¼	3⅛	2⅝ x 3⅛	3	6.00
22R02	AGF	7	300–0–300	70	5.0	2.0	6.3 CT	3.0	2 x 2½	3⅛	3 x 2½	2.75	6.00
22R04	AGF	7	300–0–300	90	5.0	2.0	6.3 CT	3.5	2¼ x 2⅞	3¼	3⅜ x 2⅞	3.0	6.30
22R05	AGF	7	300–0–300	120	5.0	3.0	6.3 CT	5.0	2¼ x 3⅛	3⅝	3¾ x 3⅛	4.25	6.90
24R01	AGF	7	325–0–325	40	5.0	2.0	6.3 CT	2.0	2 x 2½	2⅞	3 x 2½	2.5	4.80
24R01U	GGV		325–0–325	40	5.0	2.0	6.3 CT	2.0	1¾ x 2	3⅝	2⅝ x 2¾	2.5	4.80
22R10	AGF	7	325–0–325	85	5.0	2.0	2.5 CT 2.5 CT	9.0 3.5	2½ x 3⅛	3⅝	3¾ x 3⅛	3.5	8.40
22R11	AGF	7	325–0–325	120	5.0	3.0	2.5 CT 2.5 CT	5.0 12.5	2½ x 3⅛	4⅛	3¾ x 3⅛		9.00
22R06	AGF	7	325–0–325	150	5.0	3.0	6.3 CT	5.0	2½ x 3⅛	4⅛	3¾ x 3⅛	5.5	7.20
24R02	AGF	7	350–0–350	70	5.0	2.0	6.3 CT	2.5	2¼ x 2⅞	3⅞	3⅝ x 2⅞	3.8	5.40
24R02U	GGV		350–0–350	70	5.0	2.0	6.3 CT	2.5	2¼ x 2¼	3½	2⅞ x 3¼	3.8	5.40
22R16	WTV		350–0–350	85	5.0	2.0	6.3 CT	2.25	3⅛ x 3⅛	4⅞	4¼ x 3¾	7.5	10.80
24R04	AGF	7	350–0–350	90	5.0	3.0	6.3 CT	3.5	2¼ x ⅞	4	3⅜ x 2⅞	4.5	6.00
24R04U	GGV		350–0–350	90	5.0	3.0	6.3 CT	3.5	2⅜ x 2¼	3½	2⅞ x 3⅞	4.5	6.00
22R32	GGV		350–0–350	110	5.0	2.0	6.3 CT 6.3 CT	3.0 3.0	2¾ x 2½	3⅞	3¼ x 4	5.8	8.10
22R15	WTV		350–0–350	110	5.0	2.0	6.3 CT 6.3 CT	3.0 3.0	3¼ x 3⅝	5½	4¼ x 4⅜	8.1	15.00
24R05	AGF	7	350–0–350	120	5.0	3.0	6.3 CT	4.7	2½ x 3⅛	4⅛	3¾ x 3⅛	5.75	6.60
24R05U	GGV		350–0–350	120	5.0	3.0	6.3 CT	4.7	2¾ x 2½	3⅞	3¼ x 4	5.75	6.60
24R98	AGF	7	350–0–350	175	5.0 5.0	3.0 2.0	6.3 6.3	7.0 0.9	3 x 3¾	4⅜	4½ x 3¾	8.5	12.00
22R07	AGF	7	350–0–350	200	5.0	3.0	6.3 CT	6.0	3 x 3¾	3⅞	4½ x 3¾	7.5	9.00
26R25U	GGV	5	350–0–350	200	5.0 5.0	3.0 3.0	6.3 6.3	7.0 0.6	3¾ x 3	4⅝	3⅞ x 4⅞	11.2	10.80
26R21	AGF	5, 7	350–0–350	225	5.0	3.0	6.3 6.3	10.0 2.7	3 x 3¾	4¾	4½ x 3¾	11.5	12.00
26R20	AGF	4, 5	350–0–350	225	5.0 CT	3.0	6.3 6.3	10.0 2.7	3 x 3¾	4¾	4½ x 3¾	11.5	12.60
22R31	GGV		360–0–360	80	5.0	2.0	6.3 CT	2.5	2¾ x 2	3½	2½ x 2¾	4	7.20
26R23	AGF	5, 7	360–0–360	180	5.0	3.0	6.3	9.0	2¾ x 3½	4¼	4¼ x 3½	8	12.60
26R22	AGF	4, 5, 7	360–0–360	180	5.0 CT	3.0	6.3	9.0	2¾ x 3½	4¼	4¼ x 3½	8	12.90
26R17	AGF	5, 7	360–0–360	250	5.0 5.0	3.0 3.0	6.3 6.3	9.0 3.0	3 x 3¾	5⅛	4½ x 3¾	11.0	14.40
26R15	AGF	5, 7	360–0–360	250	5.0 5.0	3.0 3.0	6.3 6.3	9.0 3.0	3 x 3¾	5⅛	4½ x 3¾	10	13.50
26R16	AGF	5, 7	362–0–362	295	5.0 5.0	6.0 2.0	12.6 CT	5.0	3 x 3¾	4¾	4½ x 3¾	11.7	16.20
24R06	AGF	7	375–0–375	150	5.0	3.0	6.3 CT	4.7	2¾ x 3½	3⅞	4½ x 3½	6.25	7.20
24R06U	GGV		375–0–375	150	5.0	3.0	6.3 CT	4.7	2¾ x 2¾	4¼	3½ x 4	6.25	7.20
22R17	WTV		375–0–375	160	5.0	3.0	6.3 CT	3.5	3¾ x 4⅜	5¾	5⅜ x 4⅝	12.25	16.80
22R33	GGV		375–0–375	160	3.0	3.0	6.3 CT	5.0	2⅞ x 3	4⅝	3⅞ x 4	7.5	9.60
22R34	GGV	7	385–0–385	225	5.0	3.0	6.3 CT	5.0	3⅜ x 3	4⅝	3⅞ x 4¾	11.2	12.00
24R07	AGF		400–0–400	200	5.0	3.0	6.3 CT	5.0	3¾ x 3¾	4½	4½ x 3¾	9.25	8.40
24R07U	GGV		400–0–400	200	5.0	3.0	6.3 CT	5.0	3⅜ x 3	4⅝	3⅞ x 4½	9.5	8.40
26R26U	GGV		400–0–400	300	5.0 5.0	3.0 6.0	12.6 CT	10.0	4¼ x 3½	5½	4⅜ x 5¾	10.2	16.80
22R35	GGV		400–0–400	340	5	6.0	6.3 CT	7.0	4¼ x 3	4⅝	3⅞ x 5¼	12.5	13.20
22R36	GGV		600–0–600	200	5.0	3.0	6.3	5.0	3⅜ x 3	4⅝	3⅞ x 4½	9.7	10.80

FOR HALF WAVE RECTIFIERS

Type No.	Case Style	Note	Plate Supply AC Volts	Plate Supply DC MA	Rect Fil. Volts	Rect Fil. Amps.	Other Fils. Volts	Other Fils. Amps.	Mtg. Centers, In	Height Inches	Base Area Inches	Weight Lbs.	Net Each
26R32	BGV	1, 8	120	20	6.3 CT	0.7			2	2	2½ x 1¾	0.75	$ 2.00
26R14	AGF	2, 7	117	200	6.3	4.25	6.3	4.0	2¾ x 3½	3½	4⅜ x 3½	6.2	9.60
26R13	AGF	1, 8	140 Tap 117	300			6.3 6.3 6.3	9.0 2.0 1.0	3 x 3¾	3¾	4½ x 3¾	7.5	9.00
22R12	BAH	1 8	150	50	6.3	1.5			3½	2¼	3¾ x 2	1.5	3.30
26R28U	GGV	2, 3	1750	2	2.5	2	6.3 2.5	2 or 2	2 x 2	3⅛	2⅜ x 2⅞	2.6	6.30
22R40	GGV	2, 3	1800	2	2.5	1.8	6.3 2.5	0.6 or 2.2	2⅞ x 2½	3⅞	3¼ x 3¾	5	10.80
24R91	GGV	2, 3	1800	2	2.5	1.75			2 x 2	3⅛	2⅝ x 2⅞	2.7	7.50
22R42	BAH	2, 3	1880	2	2.5	1.75			3⅝	2½	4 x 2⅝	2	5.40
24R92	GGV	3	2400	5	2.5	1.75			2¾ x 2¾	4¼	3½ x 3⅞	5.6	9.60
26R29U	GGV	3	2500	5	2.5	2	6.3 2.5	3.0 or 3.0	2¼ x 2½	3⅞	3¼ x 3½	4.6	9.60

POWER TRANSFORMERS

FULL WAVE—MULTIPLE HIGH VOLTAGE SECONDARY AND TAPPED SECONDARIES

Thord. No.	Case Style	Note	Plate Supply AC Volts	Plate Supply DC MA	Rect. Fil. Volts	Rect. Fil. Amps.	Other Fils. Volts	Other Fils. Amps.	Mtg. Centers, In.	Height Inches	Base Area Inches	Weight Lbs.	Net Each
26R24	AGF	4, 5, 7	322–0–322 205–0–205	180 70	5.0 CT	3.9	6.3 6.3	10.0 3.0	3 x 3¾	4¾	4½ x 3¾	11.25	$14.40
22R14	WTV		325–0–325 77V Bias Tap	135	5.0 5.0	3.0 2.0	6.3 CT 6.3 CT	4.0 2.0	3¾ x 4⅜	5¾	5⅜ x 4⅝	12.75	20.40
24R94	AGF	7	365–0–365 200–0–200	210 90	5.0 5.0	2.0 6.0	6.3 6.3	5.0 5.0	3 x 3¾	5⅛	4½ x 3¾	16	17.40
26R18	AGF	5, 7	375–0–375 325–0–325	170 130	5.0 5.0 5.0	3.0 3.0 2.0	12.6 CT 6.3	5.0 2.6	3 x 3¾	4¾	4½ x 3¾	11.5	15.00
26R27U	GGV	5	390–0–390 325–0–325	160 130	5.0 5.0 5.0	3.0 3.0 3.0	6.3 6.3	8.0 4.0	3¾ x 3	4⅝	3⅞ x 4⅞	11.25	15.60
26R19	AGF	4, 7	400–0–400 212–0–212	220 90	5.0 5.0	3.0 2.0	6.3 6.3	10.0 2.6	3 x 3¾	4¾	4½ x 3¾	11.7	15.00
26R00	AGF	5, 6, 7	420–0–420 360–0–360 300–0–300	295	5.0 5.0	6.0 3.0	6.3 6.3 6.3 6.3	3.0 3.0 3.0 3.0	3 x 3¾	4¾	4½ x 3¾	11	15.00
26R30U	GGV	5	450–0–450 325–0–325	240 200	5.0 5.0 5.0	3.0 3.0 3.0	6.3 6.3 6.3	6.0 6.0 2.6	3¾ x 3⅜	6	4⅜ x 5⅜	16	21.60

NOTES

1. Applicable to selenium rectifier and voltage multiplier circuits. **2.** Applicable to photoflash circuits. See the photoflash listings for supplementary units. **3.** May be used in cathode ray tube applications. **4.** Constructed with top mounted socket, Type AGF. **5.** Fully flux and static shielded. **6.** Universal TV replacement transformer. A replacement in over 2000 sets. **7.** Universal mounting brackets provide for flush, vertical or horizontal placement. **8.** May be used as bias supply transformers.

PLATE TRANSFORMERS

FOR SINGLE H. V. SUPPLY

Thord. No.	Case Style	Note	Secondary AC Volts	DC Volts	D.C.M.A. ICAS	D.C.M.A. CCS	Net Each
21P89	GGV	1	550–0–550	400	250	175	$ 8.10
21P85	PUV	3, 4	855–0–855 731–0–731	600 500	425	300	22.50
21P87	GGV	1, 3	835–0–835 656–0–656	650 500	300	200	12.30
21P83	PUV	1, 3, 4	1560–0–1560 1250–0–1250	1250 1000	300	200	30.00
21P81	PUV	1, 3, 4	1560–0–1560 1265–0–1265	1250 1000	425	300	54.00
21P82	PUV	1, 3, 4	2110–0–2110 1600–0–1600	2000 1500	300	220	54.00
24P79	CTV	1, 8	25000 (1KVA)			40	150.00

115 volts 50/60 cps. primary except 24P79, 60 cps. only.

FOR SINGLE OR MULTIPLE SUPPLY—COMMON CENTER TAP

Thord. No.	Case Style	Note	Secondary AC Volts	DC Volts	D.C.M.A. ICAS	D.C.M.A. CCS	Net Each
*21P93	GGV	1, 2, 6	1075–500–0–500–1075	1000 400	110 150	95 125	$ 13.50
*21P91	PUV	1, 2, 5	1200–0–1200 900–0–900	1000 750	200 150	150 110	37.80
21P79	PUV	1, 2, 7	1875–0–1875 1500–0–1560	1500 1250	550	400	52.80
21P77	PUV	1, 2, 4, 7	3000–0–3000 2450–0–2450	2500 2000	425	300	75.00
*21P96	JUV	1, 2, 7	3080–0–3080 2480–0–2480	2500 2000	500	375	80.40
21P75	PUV	1, 2, 4, 7	3000–0–3000 2400–0–240C 1500–0–1500	2500 2000 1250	650	500	111.00

*Primary 115 volts, 50/60 cycle; all others, 115/230 volts.

NOTES FOR 21P SERIES ABOVE

1. Static shielded. **2.** Tapped secondary makes possible a single rectifier system on choice voltages or a multiple rectifier system with multiple outputs simultaneously. **3.** Secondary voltage may be changed by a primary tap. Either of the given voltages are available. **4.** C.H.T. transformer. **5.** The M.A. rating given is for operation of a single supply. **6.** The M.A. rating given is for simultaneous operation from both voltages. **7.** Only the maximum M.A. rating is given. Unit may be used with either or both windings. **8.** This specialty transformer has a closed core double magnetic circuit. The magnetic shunt control protects the transformer from excess current surges. At short circuit the secondary is limited to 40 M.A. This unit is suitable for half-wave rectifiers, and may be used in testing, demonstration, air filters, etc.

UNIVERSAL CHOKES

Designed for maximum filtering and regulation with minimum size. Rated at 50 volts 60 cycles at current ratings given.

Thord. No.	Case Style	Note	Inductance Henries	Inductance At MADC	Res., Ohms	RMS Test Volts	Net Each
20C58	BAH	1, 2	0.75 0.75	0.5 10	30	1100	$ 1.80
20C50	BAH	1	320 150	5 15	5500	2500	3.00
20C63	TAV	1	135	5	6500	1500	3.90
26C40	BAH		1.5	10	9Ω	1500	1.20
20C51	BAH	2	35	15	1850	1200	1.50
20C52	BAH	1	12 8 4	20 40 65	450	1200	1.50
26C42	BAH	1	4.5	50	200	1500	1.80
20C66	BAH	1	9	50	500	2500	1.80
20C59	BAH	1	9 7 5	45 55 65	200	1600	1.80
20C65	BAV		6	75	200	1600	2.10
20C53	BAH	2	17 12 8	60 80 100	375	2500	2.10
20C64	BAH		7 4 3	100 130 150	100	1600	2.70
20C54	GGV		12 8 4	100 150 200	145	2700	3.90
20C54P	WTV		12 8 4	100 150 200	145	2700	6.90
26C41	BAH		1.5	200	90	1600	1.50
26C43	BAH		2	200	50	1500	2.10
20C49	BAH		5 4.5 4	150 200 250	58	2700	2.70
20C55	GGV		9 6 2	150 200 300	75	2700	4.80
20C55P	WTV		9 6 2	150 200 300	75	2700	7.80
26C45	GGV		10	200	140	3000	4.80
26C44	BAH		1	300	60	2500	2.40
20C56	GGV		8	250	60	3500	6.60
20C56P	WTV		8 7 4	250 300 375	60	3500	10.30
20C57	PUV		10	500	65	7500	27.00

1. Applicable to AC/DC replacement and transformer type power supplies. **2.** Has audio reactor applications.

VIBRATOR TRANSFORMERS

For 6 volt nominal battery to vibrator. 4.8–0–4.8.

Thord. No.	Note	DC MA	Volts DC To Filter	Mtg. Centers	Ht.	Base Area	Wt. Lbs.	Net Each
22R25	1, 2	40	150	1½x1½	8¼	2¾x2¼	2.0	$4.50
22R23	1	80	160	1¾x1½	3¾	2¼x2¼	1.75	3.90
22R29	1, 2	60	210	1½x1½	3¼	2½x2¾	2.5	4.80
22R28	1, 2	80	240	1½x1½	3¼	2½x2¾	3.5	5.10
22R27	1, 2	50	250	1½x1½	3½	2¾x2¼	2	4.80
*22R20		50	250	1¾ x2	3½	2½x2¼	2.5	4.80
22R26	1	80	250	2 x1⅝	3½	2½x2¾	2.5	5.40
*22R18		75	285	2 x2¼	3¼	2½x2¾	2.8	4.80
*22R22		75	325	2 x2½	3¼	2½x3	3.5	5.40
*22R19		100	330	2¼x2¼	3½	2¾x2¾	3.5	5.40

*CAV case; all others TAV. **Note 1,** Has tapped windings. **Note 2,** Can be used in special splatter circuit. Recommended for use with 21F05 Filament Transformer.

THORDARSON TRANSFORMERS

FILAMENT TRANSFORMERS

WITH SINGLE SECONDARY

Designed to RETMA standards and color code. 117 volts 50/60 cycles.

Thord. No.	Case Style	Secondary Volts	Secondary Amps.	RMS Test Volts	Net Each
21F00	BAV	2.5 CT	5	2500	$ 3.00
21F01	BAV	2.5 CT	10	2500	3.60
21F02	CAV	2.5 CT	10	10000	4.80
21F02P	WTV	2.5 CT	10	7500	9.00
21F03	BAV	5 CT	3	2500	3.00
21F04	CAV	5 CT	8	2500	4.50
21F05	CAV	5 CT	3	10000	4.80
21F06	CAV	5 CT	13	2500	4.50
21F20	CAV	5 CT	15	10000	6.90
21F20P	WTV	5 CT	15	10000	14.40
21F07	CAV	5 CT	21	2500	7.20
21F07A	CAV	5 CT	29	2500	9.00
21F08	BAV	6.3 CT	1	2500	2.10
26F60	BAH	6.3 CT	1.2	5000	2.70
21F10	BAH	6.3 CT	3	2500	3.00
21F11	CAV	6.3 CT	6	2500	4.80
21F12	CAV	6.3 CT	10	2500	4.50
21F15	BAV	7.5 CT	8	2500	3.90
21F16	CAV	7.5 CT	8	2500	4.80
21F17	CAV	7.5 CT	12	2500	6.30
21F18	CAV	10 CT	5	2500	4.80

WITH MULTIPLE SECONDARIES

Designed to RETMA standards and color code. All primaries are 117 volts 50/60 cycles.

Thord. No.	Case Style	Note	Secondary Volts	Secondary Amps.	RMS Test Volts	Net Each
21F14	BAH		2.5 5 6.3	2.5	2500	$3.00
21F22	GGV	1	5 7.5-6.3-5	3 6	2500	7.20
26F61	BAH		5 CT 6.3	3 3.6	2500	3.90
21F19	CAV	2	10 CT or 11 CT	12 11	2500	7.20
21F23	GGV		5 CT 6.3 CT	6 6	2500	7.50
21F24	GGV		6.3 6.3 6.3 6.3	3 3 3 3	2500	9.00

NOTES

1. Only the No. 2 winding is tapped. 2. The secondary voltage can be varied by a primary tap.

INPUT AND INTERSTAGE

Thord. No.	Case Style	Note	Turns Ratio	Impedance Primary	Impedance Secondary	Net Each
20A00	BAH	1	1:10	35/50 200/250 CT 500/600 CT	5000 CT 20000 CT 60000 CT	$ 2.10
20A05	RTV	2, 3	1:10	35/50 200/250 CT 500/600 CT	5000 CT	9.00
20A41	Z	1	1:14.2	200 CT 250 CT	40000 50000	18.00
20A01	FGV	8	1:20	35/50 200/250 CT 500/600 CT	20000 80000 240000	3.60
20A02	FGV	2, 3	1:20	35/50 200/250 CT 500/600 CT	20000 CT	3.90
20A40	Z	1, 6	1:31.6	30 CT 50 CT	30000 50000	18.00
20A04	BAH	1, 9	1:80	3/6 35/50	38,400 320000	1.80

LOW IMPEDANCE SOURCE TO SINGLE OR P. P. GRIDS

20A03	BAH	1, 7	1:3.25 1:35	10000 200	100,000 250,000	$ 3.00

SINGLE PLATE TO SINGLE OR PUSH-PULL GRIDS

20A16	BAH		1:2	7000 15000	28000 CT 60000 CT	$ 1.80
20A17	RAV		1:2	10000	40000 CT	3.90
20A27	RTV	2, 3	1:2	10000/2500	40000/ 10000 CT	9.00
20A18	BAH		1:3	7000 15000	63000 CT 135000 CT	1.80
20A22	BAH		1:3	7000 15000	63000 CT 135000 CT	3.00
20A23	FGV		1:3	10000	90000 CT	3.90

SINGLE OR PUSH-PULL PLATE TO SINGLE OR P. P. GRIDS

20A25	RTV	2, 3	1:1.41	10000/20000 CT	20000/ 40000 CT	$ 7.50
20A19	BAH		1:3	10000/20000 CT	90000/ 180000 CT	2.40
20A24	FGV	3	1:3	20000 CT	180000 CT	4.20

LOW IMPEDANCE MULTI-PURPOSE

20A06	RTV	2, 3, 4	1:1:1:1	35/50 CT 200/250 CT 500/600 CT	35/50 200/250 CT 500/600 CT	$ 9.00

NOTES FOR 20A SERIES ABOVE

1. Static shielded. 2. Has hum-bucking coil and core construction. 3. Has a split secondary winding. Both the primary and secondary are single or push-pull. 4. Applicable for line to line or lines, mike to line, mixing low impedance line or mike and pickup. 5. Applicable for single or push-pull plate to single or push-pull grids, mixing high impedance outputs, driver (2-1). 6. Frequency response 1.5 db from 30-15,000 cps. Magnetic shielded. 7. Applicable to transceiver circuits. 8. Applicable to match high impedance mike to line (secondary to primary). 9. Intercom or transceiver speaker coil to grid transformer.

OUTPUT TRANSFORMERS

All transformers are RETMA color coded. Complete instructions are supplied for each unit. See output transformer chart for applications of these transformers. BAH case.

SERVICE SERIES

TUBE TO STANDARD VOICE COIL (3.2 OHMS)

Thord. No.	Primary Impedance	Max. MADC	Watts	Mtg. Ctrs.	Ht. Ins.	Wt. Lbs.	Net Each
24S50	2000	55	5	2	1⅜	0.5	$1.20
26S58	2500	40	3	1½	1⅜	0.5	.95
26S50	3500	60	8	2⅜	1⅝	0.75	1.50
24S48	4–5000	10	5	1¾	1¼	0.4	1.20
24S51	5000	40	5	2	1⅜	0.5	1.20
26S49	5000	50	8	2¾	1⅝	0.75	1.50
24S49	7–8000	10	5	1¾	1¼	0.4	1.20
24S52	7–10000	30	5	2	1⅜	0.5	1.20
26S48	7000	40	8	2⅜	1⅝	0.75	1.50
26S47	14000 CT	35	12	2¾	2	1	1.80
24S54	20–25000	10	5	2	1¾	0.5	1.20

HUMBUCKING WITH 3% AND 6% TAPS TO STANDARD VOICE COIL (3.2 OHMS)

Thord. No.	Primary Impedance	Max. MADC	Height Inches	Base Area Inches	Net Each
24S50A	2000	55	1⅜	2⅜ x 1⅛	$1.50
24S51A	5000	40	1⅜	2⅜ x 1⅛	1.50

BAH case, 2" mounting centers, 5 watts. Weight, 0.5 lb.

UNIVERSAL OUTPUT—SINGLE OR PUSH PULL APPLICATIONS TO ANY VOICE COIL (0.1 TO 30 OHMS)

Thord. No.	Case Style	Primary Impedance	Max. MADC	Watts	Mtg. Ctrs.	Ht. Ins.	Net Each
24S60	BHH	4000, 7000, 8000, 10000 14000 CT	35	4	2	1⅜	$2.10
24S61	BHH	4000, 7000, 8000, 10000, 14000 CT	40	8	2⅜	1⅝	2.40
26S46	BHV	4000, 7000, 8000, 10000, 14000 CT	40	18	2¾	2¾	2.40

UNIVERSAL LINE OR LINES TO MULTIPLE VOICE COIL (3.2, 8 OHMS)

Thord. No.	Primary Impedance	Max. MADC	Mtg. Ctrs.	Ht. Ins.	Base Area, Ins.	Wt. Lbs.	Net Each
24S66	500, 1000 1500, 2000	10 10	2	2	2½ x 1⅞	1	$3.00
24S62	500	10 10	3	3	3⅜ x 2⅛	2.0	3.90

BAV Case, 10 watts

SPECIAL DUTY SERIES

TUBE TO STANDARD VOICE COIL (3.2 OHMS)

Thord. No.	Primary Impedance	Max. MADC	Base Area Inches	Wt. Lbs.	Net Each
22S45	1500–3000	55	2⅜ x 1¼	0.5	$1.80
22S46	3000–6000	35	2⅜ x 1¼	0.5	2.10
22S47	6000–12000 CT	35	2⅜ x 1¼	0.5	2.10
22S48	12000–25000 CT	8	2⅜ x 1¼	0.5	2.10

BAH Case, 5 watts, 2" Mounting Centers, 1⅜" high.

TUBE TO MULTIPLE VOICE COIL (3.2, 8 OHMS)

Thord. No.	Primary Impedance	Max. MADC	Base Area Inches	Wt. Lbs.	Net Each
22S60	2500/4000 CT	60	3⅛ x 1¾	1.25	$3.00
22S58	5000/7000 CT	45	3⅛ x 1¾	1.25	3.00
22S56	8000/10000 CT	35	3⅛ x 1¾	1.25	3.00

BAH case, 10 watts, 2¾" mounting centers, 2" high.

TUBE TO MULTIPLE VOICE COIL (3.2, 8, 16 OHMS)

Thord. No.	Case Style	Primary Impedance	Max. MADC	Watts	Net Each
22S95	GGV	3000/5000 CT	60	15	$7.20
26S59	BAH	10000 CT	30	10	3.00
22S96	WTV	3000/5000 CT	60	15	9.60
22S93	GGV	9500 CT	50	10	6.60
22S94	WTV	9500 CT	50	10	9.00
22S44	VAV	9500 CT	35	12	5.10

TUBE TO LINE OR MULTIPLE VOICE COIL (3.2, 8, 16, 250, 500 OHMS)

Thord. No.	Primary Imped.	Max. MADC	Mtg. Centers	Ht. In.	Base Area	Wt. Lbs.	Net Each
†22S72	3000 CT	90	1¾x2	3⅛	2⅜x2⅜	2.5	$ 5.40
††22S78	3300 CT	180	2½x2½	3⅛	3¼x3¾	5.25	7.80
22S70	5000 CT	80	1¾x2	3⅛	2⅜x2⅜	2.5	5.70
22S97	6000 CT	60	1¾x2	3⅛	2⅜x2⅜	3.5	7.80
*22S98	6000 CT	60	2¾x2¾	4⅛	3 x3⅛	7.25	10.80
22S68	6500 CT	70	1¾x2	3⅛	2⅜x2⅜	2.5	5.40
22S66	8000 CT	60	1¾x2	3⅛	2⅜x2⅜	2.5	5.70
22S64	10000 CT	50	1¾x2	3⅛	2⅜x2⅜	2.5	5.70

†Has a split winding and is applicable to balancing push-pull outputs. ††60 watts; all others 25 watts. *WTV case; all others GGV.

UNIVERSAL OUTPUT—SINGLE OR PUSH PULL TO ANY VOICE COIL (1-30 OHMS)

Thord. No.	Primary Impedance	Max. MADC	Watts	Mtg. Ctrs.	Ht. In.	Base Area	Wt. Lbs.	Net Each
22S62	1500, 2000, 2500, 3000, 4000	50	8	2¾	2	3⅛x2½		$3.00
22S74	2500, 3000, 5000, 8000, 10000, 14000 CT	80	25	3⅛	2½	4 x2⅝		4.80

BHH Case.

UNIVERSAL OUTPUT—SINGLE OR PUSH PULL TO ANY VOICE COIL (3.2, 8 OHMS)

Thord. No.	Primary Impedance	Watts	Mtg. Ctrs.	Ht. In.	Base Area	Wt. Lbs.	Net Each
22S86	2000, 3500 8000, 14000 CT	3	2	1⅜	2⅜x1¼	0.5	$2.40
22S87	2000, 3500 8000, 14000 CT	6	2⅜	1⅝	2⅜x1⅝	0.75	2.70
22S88	2000, 3500 8000, 14000 CT	8	2¾	2	3⅛x1¾	1	3.00

BAH Case. Max. MADC, 10.

LINE OR LINES TO MULTIPLE VOICE COIL (3.2, 8, 16 OHMS)

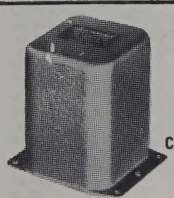
Thord. No.	Primary Impedance	Watts	Mtg. Ctrs.	Ht. In.	Base Area	Wt. Lbs.	Net Each
*22S81	45–50	8	2⅜	1⅝	2⅛x1⅛	1.25	$1.80
†22S80	500, 600	8	3⅛	2¼	3¾x2½	1.5	3.30
22S85	500, 1000 1500, 2000	3	2⅜	1⅜	2⅜x1⅜	0.75	3.30
††22S84	500, 1000 1500, 2000	5	2¾	2	3⅛x1¾	1	3.30
††22S83	500, 1000 1500, 2000	15	3⅛	2¼	3¾x2	2.25	3.60
†22S82	500, 1000 1500, 2000	25	3⅛	2½	4 x2⅜	2.25	5.10

*BAV Case. †BHH Case. ††BAH Case.

ACROSOUND ULTRA-LINEAR

High Fidelity Output Transformers for Every Application!

Case Type "A"—3⅝" x 3¼" x 4¼" high. Case Type "B"—4" x 4⅝" x 5⅜" high.



CASE TYPE "A"

CASE TYPE "B"

MODEL	IMPEDANCES*	POWER RATING	FREQUENCY RESPONSE	RATED PRIMARY CURRENT PER TUBE	PERMISSIBLE DC PRIMARY UNBALANCE	** CASE TYPE	WEIGHT	NET PRICE	APPLICATION
T0-230	3000 plate-to-plate 4, 8, 16 secondary	20 watts—20 cps to 20 kc 40 watts—30 cps to 15 kc	±1 db 10 cps to 40 kc	150 ma	20%	A	7 lbs.	$14.50	For use with 6B4's or 2A3's fixed bias pp par. 6L6's, etc.
T0-250	5000 plate-to-plate 4, 8, 16 secondary	10 watts—20 cps to 20 kc 20 watts—30 cps to 15 kc	±1 db 10 cps to 40 kc	75 ma	10%	A	6 lbs.	11.75	For use with 6B4's or 2A3's self bias, 6L6's, class A, etc.
T0-270	10,000 plate-to-plate 4, 8, 16 secondary	10 watts—20 cps to 20 kc 20 watts—30 cps to 15 kc	±1 db 10 cps to 40 kc	75 ma	10%	A	6 lbs.	11.75	For use with 6V6's, 6K6's, etc.
T0-280	9000 plate-to-plate 4, 8, 16 secondary	20 watts—20 cps to 20 kc 40 watts—30 cps to 15 kc	±1 db 10 cps to 40 kc	75 ma	10%	A	7 lbs.	14.50	For use with 6L6's, class AB1
T0-290	12,000 plate-to-plate 4, 8, 16 secondary	20 watts—20 cps to 20 kc 40 watts—30 cps to 15 kc	±1 db 10 cps to 40 kc	75 ma	10%	A	7 lbs.	15.75	For use with triode connected 807's or 5881's in Williamson type circuit
T0-300	6600 plate-to-plate 4, 8, 16 secondary	20 watts—20 cps to 30 kc 40 watts—30 cps to 20 kc	±1 db 10 cps to 100 kc	75 ma	15%	A	7 lbs.	24.75	For Ultra-Linear operation of KT-66's, 807's, 5881's, and Ultra-Linear conversion of Williamson type circuits
T0-310	8000 plate-to-plate 4, 8, 16 secondary	10 watts—20 cps to 30 kc 20 watts—30 cps to 20 kc	±1 db 10 cps to 100 kc	75 ma	10%	A	6 lbs.	18.75	For Ultra-Linear operation of 6V6's
T0-320	3500 plate-to-plate 4, 8, 16 secondary	10 watts—20 cps to 30 kc 20 watts—30 cps to 20 kc	±1 db 10 cps to 100 kc	75 ma	10%	A	6 lbs.	18.75	For Ultra-Linear operation of 6Y6's
T0-330	3300 plate-to-plate 4, 8, 16 secondary	50 watts—20 cps to 20 kc 100 watts—30 cps to 15 kc	±1 db 10 cps to 100 kc	150 ma	15%	B	14 lbs.	39.75	For push pull parallel Ultra-Linear operation of KT-66's, 807's, etc.
T0-350	6600 plate-to-plate 4, 8, 16 secondary	100 watts—20 cps to 20 kc	±1 db 7 cps to 70 kc	175 ma	10%	B	14 lbs.	49.50	For Ultra-Linear operation of 6146 tubes using tertiary winding for screen connection.

All models available with additional line winding (125 and 500 ohms) at extra cost of $6.00 net for models with numbers up to T0-320 and $10.00 net for models T0-330 and T0-350. Models with line winding are designated by model numbers ending in "5." For example, Model T0-300 with additional line winding is specified as T0-305.

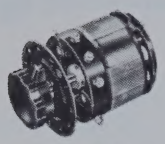
** All cases are furnished in silver grey hammerloid finish. 10-inch color coded wire leads are brought out through case bottoms.

Case type "A" mounts with base flange. Case type "B" has provision for either top or bottom mounting.

SUPERIOR POWERSTAT VARIABLE TRANSFORMERS

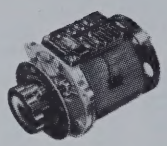
Provide A Continuously Adjustable Source Of A-C Voltages

A Complete Line From 150 VA to 100 KVA

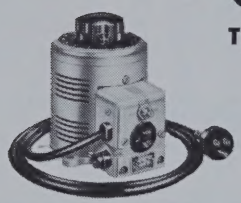


Type 20

Type 10



Type 116U



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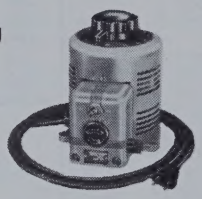
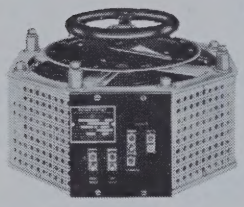


Type 116

Type UC1M



Type 1256

Type 136

POWERSTAT variable transformers are autotransformers of toroidal core design with a movable brush tap which is rotated to deliver any desired output voltage from zero to, or above, line voltage. Glass smooth commutator surfaces and advanced winding techniques assure smooth operation and permit adjustment to a fraction of a volt. Other important features include: excellent regulation, high efficiency, conservative ratings, zero waveform distortion and rugged construction. A wide range of standard POWERSTAT variable transformers are available for 120, 240 and 480 volt, single and three phase operation. Both manually-operated and motor-driven types are offered. The rating chart lists some of the most-called-for standard POWERSTATS. Others — specifically designed to customer requirements — are available to fulfill each application. Consult us about your specific needs.

Line Volts	Frequency	Output Volts	Maximum Output Amps	Maximum Output KVA	Type	Approx. Wt. (Pounds) Net	Approx. Wt. (Pounds) Shipp.	Motor Speeds§§	Net Each
120	**60	0-120 132	1.25	0.150 0.165	10	2	2.5	.....	$8.50
120	**60	0-120 140	3.0	0.36 /0.42	20	4	6	.....	12.50
120	50 60	0-120 140	7.5	0.9 /1.0	116U	10	11	.....	18.00
120	50 60	0-120 /140	7.5	0.9/1.0	116	11	12	.....	23.00
120	50 /60	0-140*	7.5	1.0	3PF116	11	12	.....	30.00
120	50/60	0-140*	7.5	1.0	3TF116	11	12	.....	30.00
120	50/60	0-120/140	20.0	2.4/2.8	136	22	25	†5, 15, 30, 60	50.00
120	50/60	0-120/140	20.0	2.4/2.8	F136	22	25	†5, 15, 30, 60	55.00
120	50/60	0-120/140	20.0	2.4/2.8	2PF136	23	26	.....	65.00
120	50/60	0-120/140	20.0	2.4/2.8	2TF136	23	26	.....	65.00
120	50/60	0-120/140	20.0	2.4/2.8	3PF136	23	26	.....	65.00
120	50/60	0-120/140	20.0	2.4/2.8	3TF136	23	26	.....	65.00
120	50/60	0-120/140	40.0	4.8/5.6	136-2P	47	53	†5, 15, 30, 60	130.00
120	50/60	0-140*	45.0	6.3	1156	73	80	‡W, X, Y, Z	118.00
120	50/60	0-140*	45.0	6.3	F1156	74	81	‡W, X, Y, Z	128.00
120	50/60	0-140*	90.0	12.6	1156-2P	150	170	‡W, X, Y, Z	269.00
120	50/60	0-140*	135.0	18.9	1156-3P	225	295	‡W, X, Y, Z	418.00
120	50/60	0-140*	180.0	25.2	1156-4P	330	420	‡W, X, Y	613.00
120	50/60	0-140*	270.0	37.8	1156-6P	500	600	‡W, X, Y	1,015.00
240	**60	0-240 /264	1.25	0.30/0.33	10-2E	4.5	5	.....	25.00
§240	50/60	0-240/280	3.0	0.72/0.84	216U	10	11	.....	20.00
§240	50/60	0-240/280	3.0	0.72/0.84	216	11	12	.....	26.00
240	50/60	0-280*	3.0	0.84	3PF216	11	12	.....	33.00
240	50/60	0-280*	3.0	0.84	3TF216	11	12	.....	33.00
240	50/60	0-240 /280	7.5	1.8/2.1	116U-2S	17	22	.....	44.50
240	50/60	0-240 280	7.5	1.8/2.1	116-2S	18	23	.....	49.50
§240	50/60	0-240/280	9.0	2.2/2.5	236	22	25	†5, 15, 30, 60	50.00
240	50 60	0-240/280	9.0	2.2/2.5	F236	22	25	†5, 15, 30, 60	55.00
§240	50/60	0-240/280	9.0	2.2/2.5	2PF236	23	26	.....	65.00
§240	50/60	0-240/280	9.0	2.2/2.5	2TF236	23	26	.....	65.00
§240	50/60	0-240/280	9.0	2.2/2.5	3PF236	23	26	.....	65.00
§240	50/60	0-240/280	9.0	2.2/2.5	3TF236	23	26	.....	65.00
240	50/60	0-240/280	20.0	4.8/5.6	136-2S	45	51	†5, 15, 30, 60	117.00
§240	50/60	0-280*	28.0	7.8	1256	73	80	‡W, X, Y, Z	118.00
240	50/60	0-280*	28.0	7.8	F1256	74	80	‡W, X, Y, Z	128.00
240	50/60	0-280*	45.0	12.6	1156-2S	144	164	‡W, X, Y, Z	261.00
§240	50/60	0-280*	56.0	15.7	1256-2P	150	170	‡W, X, Y, Z	269.00
§240	50/60	0-280*	84.0	23.5	1256-3P	225	295	‡W, X, Y, Z	418.00
§240	50/60	0-280*	112.0	31.4	1256-4P	330	420	‡W, X, Y	613.00
240	50/60	0-280*	168.0	47.0	1256-6P	500	600	‡W, X, Y	1,015.00
*480	50/60	0-480/560	3.0	1.4/1.7	216U-2S	17	22	.....	49.00
*480	50/60	0-480/560	3.0	1.4/1.7	216-2S	18	23	.....	54.00
*480	50/60	0-480/560	9.0	4.3/5.0	236-2S	45	51	†5, 15, 30, 60	117.00
*480	50/60	0-560*	28.0	15.7	1256-2S	144	164	‡W, X, Y, Z	261.00
*480	50/60	0-560*	56.0	31.4	1256-4PS	330	420	‡W, X, Y	597.00
*480	50/60	0-560*	84.0	47.0	1256-6PS	500	600	‡W, X, Y	999.00
				THREE PHASE					
120	**60	0-120/132	1.25	0.26/0.29	10-2E	4.5	5	.....	25.00
120	**60	0-120/140	3.0	0.62/0.73	20-2D	9	12	.....	37.00
120	50/60	0-120/140	7.5	1.6/1.8	116U-2D	17	22	.....	44.50
120	50/60	0-120/140	7.5	1.6/1.8	116-2D	18	23	.....	49.50
120	50/60	0-120/140	20.0	4.2/4.8	136-2D	45	51	†5, 15, 30, 60	117.00
120	50/60	0-140*	45.0	10.9	1156-2D	144	164	‡W, X, Y, Z	261.00
120	50/60	0-140*	90.0	21.8	1156-4D	320	410	‡W, X, Y	597.00
120	50/60	0-140*	135.0	32.7	1156-6D	490	590	‡W, X, Y	1,015.00
240	60	0-240	1.25	0.52	10-3E	7	8	.....	40.00
240	60	0-240	3.0	1.2	20L-3Y	14	17	.....	39.50
§240	50/60	0-240/280	3.0	1.2/1.5	216U-2D	17	22	.....	49.00
§240	50/60	0-240/280	3.0	1.2/1.5	216-2D	18	23	.....	54.00
240	**60	0-240/280	7.5	3.1/3.6	116U-3Y	26	36	.....	61.50
240	**60	0-240/280	7.5	3.1/3.6	116-3Y	27	37	.....	68.00
§240	50/60	0-240/280	9.0	3.7/4.4	236-2D	45	51	†5, 15, 30, 60	117.00
240	**60	0-240/280	20.0	8.3/9.7	136-3Y	68	77	†5, 15, 30, 60	170.00
§240	50/60	0-280*	28.0	13.6	1256-2D	144	164	‡W, X, Y, Z	261.00
240	**60	0-280*	45.0	21.8	1156-3Y	215	280	‡W, X, Y, Z	394.00
§240	50/60	0-280*	56.0	27.2	1256-4D	320	410	‡W, X, Y	597.00
§240	50/60	0-280*	84.0	40.7	1256-6D	490	590	‡W, X, Y	1,015.00
240	**60	0-280*	90.0	43.7	1156-6Y	500	600	‡W, X, Y	991.00
*480	**60	0-480/560	3.0	2.5/2.9	216U-3Y	26	36	.....	69.50
*480	**60	0-480/560	3.0	2.5/2.9	216-3Y	27	37	.....	76.00
*480	**60	0-480/560	9.0	7.5/8.7	236-3Y	68	77	†5, 15, 30, 60	170.00
*480	**60	0-560*	28.0	27.2	1256-3Y	215	280	‡W, X, Y, Z	394.00
*480	**60	0-560*	56.0	54.3	1256-6Y	500	600	‡W, X, Y	991.00

* If it is desired to limit the maximum output voltage to the line voltage, an "L" must be inserted in the type number when ordering. Thus a type 1156-2P with an output voltage range of 0-120 volts becomes type 1156L-2P.

** When "L" connected so the output voltage will not exceed the line voltage, the frequency range of these units is 50 60 cycles.

† Speed given is time in seconds for full range travel. When ordering, prefix this number and an "M" to the POWERSTAT type number. Thus a 136-2P with a 5-second motor drive becomes type 5M136-2P.

‡ Speed letter designates time in seconds for full range travel: W-45 seconds, X-19 seconds, Y-14 seconds, Z-6 seconds. Prefix an "M" and this speed letter to the POWERSTAT type number when ordering. Thus a 1256-2S with a 14-second motor drive becomes type MY1256-2S.

* These units may be connected to operate at 240 volts input, 0-560 volts output, if desired. The allowable output current in the voltage range above 300 volts is somewhat reduced.

§ These units may be connected to operate at 120 volts input, 0-280 volts output, if desired. The allowable output current in the voltage range above 150 volts is somewhat reduced.

§§Motor drive power supply frequency (50 or 60 cycles) should be specified when ordering. 60-cycle motors will be furnished unless 50-cycle is specified.

SUPERIOR VOLTBOX A-C POWER SUPPLIES

A Compact, Portable Source Of Variable A-C Voltage

This is a handy instrument widely used in chemical, physical, electrical and other laboratories and in inspection, testing and plant maintenance departments. It eliminates the need for collecting a variable transformer, voltmeter and connection leads when tests involve variable a-c voltages. All necessary components are housed in a compact, aluminum case. By turning the "On-Off" switch to "On"; snapping the line-load switch to "Load" and rotating the knob, the desired voltage is available at the output receptacles and binding posts. Ratings are available to meet every requirement.

Type UC1M **Net Each $53.00**

FREED

Stepdown Transformers

For 220 to 110 Volt - 50/50 Cycle Operation

Equipped with standard receptacle and line cord.

*Supplied with leads without line cord and receptacle.

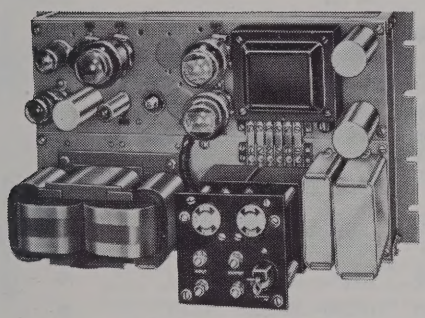
CATALOG NUMBER	VA RATING	Dimensions W	D	H	Net Ea.
SDT 1*	25	3¼	2	2	$1.95
SDT 2*	50	3¼	2⅛	2	2.25
SDT 3	50	2 19/32	2¾	3 3/32	4.50
SDT 4	100	2 9/32	3	3 15/32	6.12
SDT 5	200	3 7/32	3 5/16	3 27/32	6.93
SDT 6	300	3 7/32	3⅝	4 19/32	8.82
SDT 7	400	3 27/32	3⅞	4 19/32	11.04
SDT 8	500	3 27/32	4⅛	4 19/32	12.03
SDT 9	750	4½	5¼	5 11/32	16.05
SDT 10	1000	4½	6¾	5 11/32	22.56
SDT 11	1500	4½	8	5 11/32	33.00
SDT 12*	2000	6⅜	8½	6¼	39.60
SDT 13*	2500	6⅜	9¾	6¼	46.20
SDT 14*	3000	7¼	9⅜	6⅝	53.61
SDT 15*	5000	7¼	8⅝	10	63.00

SUPERIOR STABILINE AUTOMATIC VOLTAGE REGULATORS

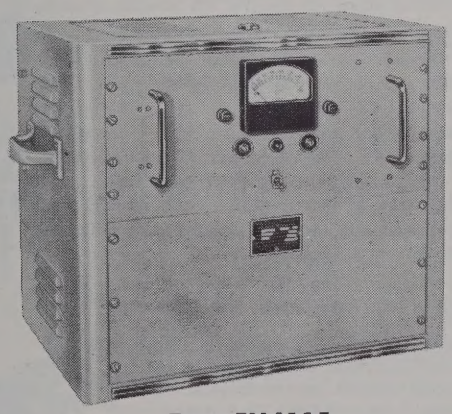
Maintain Constant Output Voltage Regardless Of Line Or Load Changes

Made In 2 Distinct Types To Meet Each Need

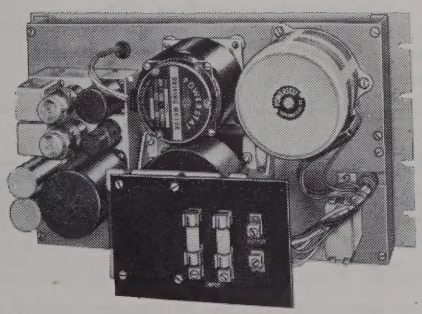
Type IE51002R



Type IE5101R



Type EM4115



Type EM4102R

Because it is obviously impossible to produce any single type of electrical instrument that will fulfill all requirements for every application, STABILINE Automatic Voltage Regulators are manufactured in two distinct types to meet individual needs. These two are: TYPE IE (Instantaneous Electronic) . . . for the most exacting control — and TYPE EM (Electro Mechanical) . . . for controlling large industrial loads or for applications requiring zero waveform distortion. Both are designed and manufactured to assure precise correction and dependable operation over long periods of continuous use. They will meet the most rigid mechanical and electrical specifications. A wide range of standard models are available and are listed below. Special types and models will be engineered to meet your own specific requirements.

TYPE IE

Type IE is completely electronic with no moving parts. Providing instantaneous correction, it is ideal for laboratories, test lines, as a component of other equipment . . . and everywhere that the most exacting automatic voltage regulation is required. At no load, full load or any intermediate stage, constant output voltage is maintained regardless of line fluctuations. The output voltage is held to within ±0.1 volts of nominal for wide line variations and within ±0.15 volts of nominal for any load current or load power factor change from .5 lagging to .9 leading. Waveform distortion never exceeds 3%. Standard types are listed below.

Input Voltage Range	Output Voltage Range	Frequency In Cycles	Load Range in Amperes	Load Power Factor Range	Rated Output KVA	Type	Net Each
95-135	110-120	60 ± 10%	0 - 2.2		0.25	IE51002	$236.00
95-135	110-120	60 ± 10%	0 - 2.2		0.25	IE51002R	236.00
95-135	110-120	60 ± 10%	0 - 4.5		0.5	IE51005	270.00
95-135	110-120	60 ± 10%	0 - 4.5		0.5	IE51005R	260.00
95-135	110-120	50 ± 10%	0 - 4.5	.5 lagging	0.5	IEL51005	385.00
95-135	110-120	50 ± 10%	0 - 4.5		0.5	IEL51005R	375.00
195-255	220-240	50 ± 10%	0 - 2.2		0.5	IEL52005	410.00
195-255	220-240	50 ± 10%	0 - 2.2	to	0.5	IEL52005R	400.00
95-135	110-120	60 ± 10%	0 - 8.5		1.0	IE5101	310.00
95-135	110-120	60 ± 10%	0 - 8.5		1.0	IE5101R	300.00
95-135	110-120	50 ± 10%	0 - 8.5	.9 leading	1.0	IEL5101	400.00
95-135	110-120	50 ± 10%	0 - 8.5		1.0	IEL5101R	390.00
195-255	220-240	50 ± 10%	0 - 4.5		1.0	IEL5201	425.00
195-255	220-240	50 ± 10%	0 - 4.5		1.0	IEL5201R	415.00
95-135	110-120	60 ± 10%	0 - 22.0		2.5	IE5102	435.00
95-135	110-120	60 ± 10%	0 - 22.0		2.5	IE5102R	425.00
195-255	220-240	60 ± 10%	0 - 11.0		2.5	IE5202	435.00
195-255	220-240	60 ± 10%	0 - 11.0		2.5	IE5202R	425.00
195-255	220-240	50 ± 10%	0 - 11.0		2.5	IEL5202	475.00
195-255	220-240	50 ± 10%	0 - 11.0		2.5	IEL5202R	465.00
95-135	110-120	60 ± 10%	0 - 43.5		5.0	IE5105	525.00
195-255	220-240	60 ± 10%	0 - 22.0		5.0	IE5205	525.00

TYPE EM

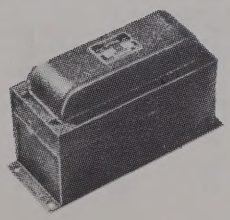
Type EM is an electro-mechanical device with a very sensitive detector controlling a motor-driven POWERSTAT variable transformer and auxiliary transformer. While not instantaneous, Type EM corrects faster than most other automatic voltage regulators. Highly efficient in operation, it finds widest application in controlling large industrial loads and also in electronic equipment where zero waveform distortion is essential. Features include: complete insensitivity to the magnitude and power factor of the load, no effect on system power factor, no critical adjustments and adjustable output voltage. Standard types listed below.

Nominal Output Voltage	Input Voltage Range	Output Voltage Range	Output Current (Amperes)	Output KVA	Type	Net Each
Single Phase						
115	95-135	110-120	17.5	2.0	EM4102	$410.00
			52.0	6.0	EM4106	450.00
			130.0	15.0	EM4115	650.00
230	195-255	220-240	32.5	7.5	EM4207	525.00
			120.0	27.5	EM4228	750.00
460	400-520	420-460	15.0	6.6	EM4407	650.00
			40.0	17.6	EM4418	775.00
Three Phase						
230	195-255	220-240	25.0	10.0	EM6210Y	950.00
			38.0	15.0	EM6215Y	990.00
			50.0	20.0	EM6220Y	1,060.00
			113.0	45.0	EM6245Y	1,465.00
			175.0	70.0	EM6270D	1,850.00
460	400-520	420-460	16.0	12.5	EM6412Y	1,050.00
			22.0	17.5	EM6417Y	1,135.00
			33.0	25.0	EM6425Y	1,210.00
			66.0	50.0	EM6450Y	1,610.00
			100.0	75.0	EM6475Y	1,885.00
	420-500	420-460	131.0	100.0	EM64100Y	1,950.00

RAYTHEON

VR VOLTAGE STABILIZERS

Deliver Accurate AC Voltage Within ± ½%



Can be incorporated in any equipment or used as an accessory. All models operate on an input of 95 to 130 volts 60 cycle single phase and have an output of 115 V AC stabilized to ± ½%.

* Model VR7B dual-purpose unit operates on inputs of 95 to 130 V or 190-260 V. and outputs of 115V or 230 V AC.

† Model N6710 supplies 6 volts output.

Model VR6101 supplies 6.0 or 7.5 Volts output.

Cat. No.	Output Watts	Overall Size L. x W. x H.	Net Each
VR6110	15	6¼x2½x3"	$16.00
VR6101#	30	7½x3⅜x4¼"	18.00
VR6111	30	7½x3⅜x4¼"	18.00
VR6112	60	7½x3⅜x4⅝"	25.00
VR6113	120	7½x3⅜x5 13/16"	33.00
VR6114	250	12⅜x5x7⅝"	52.00
VR6115	500	12⅜x5x9⅛"	81.00
VR6116	1000	14 1/16x13 3/16x9⅝"	135.00
VR6117	2000	36¼x14⅝x10⅛"	245.00
VR7B*	2000	16⅜x14⅞x12⅜"	310.00
W6710†	25	7⅝x3⅛x3⅜"	15.00

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

SOLA *Constant Voltage* TRANSFORMERS

TYPE 1

TYPE 12

TYPE 2

TYPE 21

TYPE 22

TYPE 31

TYPE 4

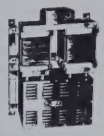
TYPE 5

CVH 5002-3

CVH 5004

TYPE CVH-5005-6

TYPE CVH-5008-10


TYPE 6

TYPE CVE

TYPE CVA TELEVOLT

TYPE CVL SOLAVOLT

SOLA 60-CYCLE SINGLE PHASE CONSTANT VOLTAGE TRANSFORMERS

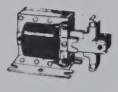
Static magnetic voltage regulators designed to deliver a secondary output regulated within ±1%, with primary voltage variations as great as 30%. Completely automatic continuous regulation; no moving parts; and no manual adjustments.

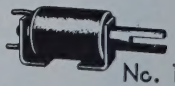
Catalog Number	Output Capacity in VA	VOLTAGE Input Range	VOLTAGE ±1% Regulated Output	Type	Net Ea.
Standard Type CV					
Regulation ±1% with total primary voltage swings as great as 30%.					
30488	15	95-125	6.0	1	$16.00
30492	15	95-125	6.3	1	16.00
30498	15	95-125	115.0	1	16.00
301002	15	95-125	6.3	12	20.00
301003	15	95-125	115.0	12	20.00
30804	30	95-125	115.0	2	18.00
30805	60	95-125	115.0	2	25.00
30806	120	95-125	115.0	2	33.00
30888	150	95-125	115.0	2	40.00
30881	25	95-125	6.3	21	17.00
30882	50	95-125	6.3	21	24.00
30885	60	95-125	115.0	22	25.00
30886	120	95-125	115.0	22	33.00
20-13-125	250	95-125	115.0	31	52.00
20-20-125	250	190-250	115.0	31	52.00
20-13-150	500	95-125	115.0	31	81.00
20-20-150	500	190-250	115.0	31	81.00
20-13-210	1000	95-125	115.0	31	135.00
20-20-210	1000	190-250	115.0	31	135.00
30811	2000	95-125	115.0	4	245.00
30M811	2000	190-250	115.0	4	245.00
30968	2000	190-250	230.0	4	245.00
301706	3000	95-190—125-250	115.0	5	345.00
301707	3000	190-380—250-500	230.0	5	345.00
301704	4000	95-190—125-250	115.0	5	435.00

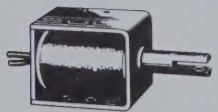
Catalog Number	Output Capacity in VA	VOLTAGE Input Range	VOLTAGE ±1% Regulated Output	Type	Net Ea.
Standard Type CV continued					
Regulation ±1% with total primary voltage swings as great as 30%.					
301702	5000	95-190—125-250	115.0	5	515.00
301703	5000	190-380—250-500	230.0	5	515.00
301700	10,000	190-380—250-500	115.0	6	990.00
301701	10,000	190-380—250-500	230.0	6	990.00
Harmonic Neutralized Type CVH					
Incorporates all the features of Type CV, plus a harmonic neutralizer circuit, ±1% regulated voltage with less than 3% harmonic distortion.					
5003	60	95-125	115	CVH	$35.00
5004	120	95-125	115	CVH	44.00
5005	250	95-125	115	CVH	70.00
5006	500	95-125	115	CVH	105.00
5008	1000	95-125	115	CVH	175.00
5010	2000	95-125	115	CVH	310.00
Plate and Filament Type CVE					
A single source of filament and plate supply regulated to within ±3% or less with line voltage variations of 100 to 130 volts.					
7105	42	100-130		CVE	10.15
7106	75	100-130		CVE	12.60
7107	210	100-130		CVE	19.60
Adjustable Harmonic Neutralized Type CVL					
Portable AC Voltage Supply, adjustable from 0 to 130 volts, ±1% regulation, harmonic distortion less than 3%.					
50105	250	95-125	115	CVL	110.00
50106	500	95-125	115	CVL	153.00
Television Receiver Type CVA					
Plug-in type regulation ±3% or less for TV receivers and appliances.					
7201	180	95-130	115-120	CVA	34.50
7202	300	95-130	115-120	CVA	37.50

GUARDIAN SOLENOIDS

Intermittent and Continuous Duty Types for 115-Volt, 60 Cycle Operation


No. 16

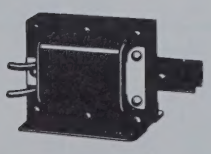

No. 1A


No. 2 and 4

Continuous Duty Types will not exceed a maximum temperature rise of 85° C. above ambient under continuous operation at rated load. Intermittent Duty Types to be used when operation cycle does not require coil energization for more than five consecutive minutes with sufficient time lapse between operations to permit coil cooling to original ambient temperature. If energized more frequently and for shorter periods, cycle should be such that temperature rise of coil is not greater than 85° C.

Be sure to specify intermittent or continuous when ordering. Solenoids for other AC voltages and DC operation available on special order at increased prices.

For your convenience in choosing the correct solenoid for your application, we have listed the lift in ounces for each type under the applicable adjustable stroke in inches.

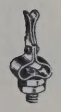

No. 12

Cat. No.	& Type	Operating Data Ohms	Amps	Weight in Ounces	ADJUSTABLE STROKE IN INCHES 1/16"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	Net Ea.
1A	Intermittent	300	.17	4	8	6	5	5	4	3	2								$2.19
2	Intermittent	60	.50	9½	27		24		24		22	18	12	5					2.55
4	Intermittent	37	.64	14	24		19		19		21	22	23	22	21	19			2.73
12	Intermittent	100	.27	5½	32		25		23		22	19	15	10	3				3.39
14	Intermittent	11	1.4	18½	110		85				70		78		91		95	68	4.89
1A	Continuous	675	.076	4	3	2	2	2	1	1									2.19
2	Continuous	166	.155	9½	10.5		9		9		8	6	4	1					2.55
4	Continuous	133	.14	14	6		4		4		5	6	6	6	6	5			2.73
12	Continuous	150	.155	5½	22		15		13		12	10	7	4					3.39
14	Continuous	18	.52	18½	65		45				40		46		55		58	40	4.89
16	Continuous	85.2	.21	7	60		40		30		27	25							3.45
18	Continuous	19.7	.39	16	145		110		95		88	85	82	80	70				4.41

GRAYHILL TEST CLIPS

SERIES 2 TEST CLIPS

Basic clip is available on various types of mounting as illustrated. Extremely useful in bread-board work to hold wire leads. Also ideal for laying out a harness. (Clips are placed at the lead ends on pegboard; pegs are then used to form the necessary pattern.) Primarily designed for mounting on the panel of test equipment to permit rapid lead connections without the necessity of manual opening and closing of jaws of clamps. They permit fast testing and insure dependable, positive contact on every test. If the tension relaxes during the use of these clips, it may be restored by merely tightening the hex adjacent to the bow.



Test Clip No. 2-0 Threaded Stud

For use on laminated panels. An ideal application for this clip, with the threaded stud, is in laying out a harness. Clips are placed at desirable intervals on a perforated board to form the pattern.

Spring tension, which may be adjusted by tightening the hex nut adjacent to the clip, insures a firm hold on the lead. Clips spread slightly on the rivet to accommodate various sizes of wire.....Net Ea. $0.15

No. 2-1 Banana Plug

This Test Clip, with banana plug, is ideal for use on "Q" Meters and similar precision test equipment having jacks on irregular spacing. (For equipment employing ¾" jack centers, see No. 2-2 Unit.) Net Ea. $0.30

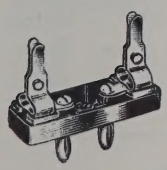
No. 2-4 Threaded Stud with Insulating Washers

For use on metal panels. Essentially the same as the No. 2-0 with the addition of two molded phenolic washers. These washers provide insulation between the clip and the metal panel on which it is mounted. .....Net Ea. $0.30

No. 2-6 Pin Plug

The counter part of the No. 2-1 banana plug clip and designed to satisfy the use of pin jacks.....Net Ea. $0.30

No. 2-2 Plug-in Adapter



The No. 2-2 Plug-in Test Adapter is designed to greatly simplify the testing of resistors, capacitors, Germanium Diodes and similar pig-tail type components. Also ideal for applications with vibrations — the No. 2-2 will not shake loose. Banana Plugs are spaced on standard ¾" centers for use with the type of jacks predominently used on laboratory test equipment. The molded board is general purpose phenolic, electrical grade, per MIL-P-14, type CFG. Clips are nickel plated—plugs, nickel plated. Highly tensioned spring clips, which may be adjusted by tightening the hex nut mounting the clip to the molded board, insures excellent contact. (For applications where jacks are not spaced on standard ¾" centers, the No. 2-1 Test Clip is recommended.)

No. 2-2.....Net Ea. $1.25

No. 16 Alligator Test Clip

COMPLETELY INSULATED . . . even the hinge pin is covered with nylon tubing to insure insulation. Clips can't short when they touch each other or adjacent points—permits easy access to those tight places. Finger grips are molded phenolic and enclose the contact and spring members. Low contact resistance of .0015 ohms is achieved by an .008" thick silver overlay at the point of contact. The terminal is silver plated. All units tested at 500 volts to insure complete insulation.

No. 16-B (black) .....Net Ea. $0.75
No. 16-R (red) .....Net Ea. $0.75

No. 17-1 Germanium Diode Holder

Gives a tight snap fit within the spring tension clips. The loop terminal and the spring clip are formed from one piece of phosphor bronze wire, insuring good contact with the diode. This clip is gold plated for ease of soldering and resistance to corrosion. The base of the holder has a projection which acts as a non-turn device when seated in a corresponding hole in the chassis. Overall length 15/16"; width ⅜"; height ⅜"; center to center of clips .635". Molded of black electrical grade phenolic in accordance with MIL-P-14, type CFG.

No. 17-1.....Net Ea. $0.33

GRAYHILL SWITCHES

Series 2000

A snap action, momentary contact, single pole, single throw push button switch. Rated to break 10 amps, 115 V.A.C. resistive. A distinct click at the moment of actuation makes it highly desirable for test equipment. Housing and button are molded phenolic. Terminals are solder type only. Rated life approximately 50,000 operations.

No. 2201—Normally Open (Red Button).....Net Ea. $1.65
No. 2202—Normally Closed (Black Button).....Net Ea. $1.65

Series 4000

A non-snap, momentary contact, single pole, single throw push button switch. Rated conservatively at ½ amp. 115 V.A.C. resistive with a life expectancy of approximately 800,000 operations. If used at 1 amp. the life is approximately 100,000 operations. Housing and button are molded phenolic. Solder type terminals only.

No. 4001—Normally Open (Red Button).....Net Ea. $0.60
No. 4002—Normally Closed (Black Button).....Net Ea. $0.60

Series 23-1

Designed for miniaturization. A non-snap, momentary contact, single pole, single throw push button switch. Rated at ¼ amp. 115 V.A.C. resistive. Housing and button are molded phenolic. Solder type terminals. Rated life approximately 500,000 operations.

No. 23-1—Normally Open (Red Button).....Net Ea. $0.75

Series 30-1

Midget, non-snap, momentary contact, single pole, single throw push button switch. Rated .10 amp. 115 volt, AC, resistive. Normally open. Housing and button of molded phenolic. Terminals—solder type only. Rated life expectancy 300,000 operations.

No. 30-1.....Net Ea. $0.85

Series 5000 Tap Switches

A miniature, quality tap switch designed to conserve panel space. Rated to break 1 amp. 115 V.A.C. resistive load and to carry 5 amps if used as a selector switch and not to make or break the circuits. Available either non-shorting (break before make) or shorting (make before break). Maximum of 10 positions per deck gives continuous rotation in either direction. Nine positions or less equipped with internal stops to allow rotation only through the desired positions. Stacked up to six decks as stock item and can be up to 10 decks on special order. Contact positions on 36° indexing. The studs on switches of 5 decks or more extend ¼" at the rear to allow double ending mounting necessary to eliminate twisting action of rear decks due to torque.

SERIES 5000 MINIATURE TAP SWITCH — TO DESIGNATE "SHORTING" AN "S" FOLLOWS SWITCH NUMBER

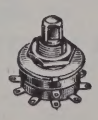
NUMBER OF POSITIONS PER DECK →

NUMBER OF DECKS ↓

	3	4	5	6	7	8	9	10
1	5003 .80	5004 .85	5005 .90	5006 .95	5007 1.00	5008 1.05	5009 1.10	5010 1.15
2	5203 2.70	5204 2.74	5205 2.78	5206 2.82	5207 2.86	5208 2.90	5209 2.94	5210 2.98
3	5303 3.00	5304 3.12	5305 3.24	5306 3.36	5307 3.48	5308 3.60	5309 3.72	5310 3.84
4	5403 3.58	5404 3.74	5405 3.90	5406 4.06	5407 4.22	5408 4.38	5409 4.54	5410 4.70
5	5503 4.16	5504 4.36	5505 4.56	5506 4.76	5507 4.96	5508 5.16	5509 5.36	5510 5.56

Available from stock in 1 to 6 decks and 2 to 10 contacts per deck.

Series 24 Tap Switches



Features POSITIVE DETENT ACTION and better "feel" for precision requirements. Something that has been desired in miniature switches for years and now finally accomplished without sacrificing the miniature characteristics. Suitable for both commercial and military equipment. Otherwise the same as the Series 5000 and 12.

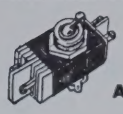
SERIES 24 MINIATURE TAP SWITCH — TO DESIGNATE "SHORTING" AN "S" FOLLOWS SWITCH NUMBER

NUMBER OF POSITIONS PER DECK →

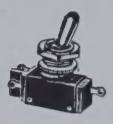
NUMBER OF DECKS ↓

	3	4	5	6	7	8	9	10
1	24YY2100-3 2.99	24YY2100-4 3.10	24YY2100-5 3.21	24YY2100-6 3.32	24YY2100-7 3.43	24YY2100-8 3.54	24YY2100-9 3.65	24YY2100-10 3.76
2	24YY2032-3 4.38	24YY2032-4 4.49	24YY2032-5 4.60	24YY2032-6 4.71	24YY2032-7 4.82	24YY2032-8 4.93	24YY2032-9 5.04	24YY2032-10 5.15
3	24YY2033-3 5.12	24YY2033-4 5.29	24YY2033-5 5.45	24YY2033-6 5.62	24YY2033-7 5.78	24YY2033-8 5.95	24YY2033-9 6.12	24YY2033-10 6.28
4	24YY2034-3 5.87	24YY2034-4 6.09	24YY2034-5 6.31	24YY2034-6 6.53	24YY2034-7 6.75	24YY2034-8 6.97	24YY2034-9 7.19	24YY2034-10 7.41
5	24YY2035-3 6.60	24YY2035-4 6.88	24YY2035-5 7.15	24YY2035-6 7.43 [1]	24YY2035-7 7.70	24YY2035-8 7.98	24YY2035-9 8.25	24YY2035-10 8.53

Available from stock in 1 to 6 decks and 2 to 10 contacts per deck.


A

A


B

A. H. & H. TOGGLE SWITCHES

Ball Handle Types (Fig. A.)

Cat. No.	Circuit	AC Rating 125V	AC Rating 250V	Sleeve Lgth.	Net Price Each on Quantities of 1-24	25-99	100-1000
5001	S.P.S.T.	6 Amp.	3 Amp.	15/32"	$ .40	$ .36	$ .32
5002	S.P.S.T.	6 Amp.	3 Amp.	1"	.50	.45	.41
5003	S.P.D.T.	3 Amp.	1 Amp.	15/32"	.50	.45	.41
5004	S.P.D.T.	3 Amp.	1 Amp.	1"	.61	.55	.50
5005	D.P.S.T.	3 Amp.	1 Amp.	15/32"	.72	.65	.59
5006	D.P.S.T.	3 Amp.	1 Amp.	1"	.82	.74	.67
5007	D.P.D.T.	3 Amp.	1 Amp.	15/32"	.83	.75	.68
5008	D.P.D.T.	3 Amp.	1 Amp.	1"	.93	.84	.76

Bat Handle Types (Fig. B.)

Cat. No.	Circuit	AC Rating 125V	AC Rating 250V	Sleeve Lgth.	Net Price Each on Quantities of 1-24	25-99	100-1000
5009	S.P.S.T.	6 Amp.	3 Amp.	15/32"	$ .40	$ .36	$ .32
5010	S.P.S.T.	6 Amp.	3 Amp.	1"	.50	.45	.41
5011	S.P.D.T.	3 Amp.	1 Amp.	15/32"	.50	.45	.41
5012	S.P.D.T.	3 Amp.	1 Amp.	1"	.61	.55	.50
5013	D.P.S.T.	3 Amp.	1 Amp.	15/32"	.72	.65	.59
5014	D.P.S.T.	3 Amp.	1 Amp.	1"	.82	.74	.67
5015	D.P.D.T.	3 Amp.	1 Amp.	15/32"	.83	.75	.68
5016	D.P.D.T.	3 Amp.	1 Amp.	1"	.93	.84	.76

On and Off Plates

Cat. No.	Net Price Each Quantities of 1-24	25-99	100-1000
5050	$ .03	$ .025	$ .022

A. H. & H. ROTARY SWITCHES

U. L. Approved. Laminated construction. Nickel-plated 5/16" dia. threaded sleeve. Supplied complete with nut.

Type A — 1" Shaft with 3/8" Bushing

Cat. No.	Circuit	Rating 125V	Rating 250V	Net Price Each Quantities of 1-24	25-99	100-1000
5018	S.P.S.T.	6 Amp.	3 Amp.	$ .49	$ .44	$ .40
5020	S.P.D.T.	3 Amp.	1 Amp.	.60	.54	.49
5022	D.P.S.T.	3 Amp.	1 Amp.	.82	.74	.67
5024	D.P.D.T.	3 Amp.	1 Amp.	.93	.84	.76

Type B — 3/8" Shaft with 1" Bushing

Cat. No.	Circuit	Rating 125V	Rating 250V	Net Price Each Quantities of 1-24	25-99	100-1000
5019	S.P.S.T.	6 Amp.	3 Amp.	$ .59	$ .53	$ .48
5021	S.P.D.T.	3 Amp.	1 Amp.	.71	.64	.58
5023	D.P.S.T.	3 Amp.	1 Amp.	.92	.83	.75
5025	D.P.D.T.	3 Amp.	1 Amp.	1.03	.93	.84

A

B

C

A. H. & H. HEAVY DUTY POWER TOGGLE SWITCHES

All U. L. Approved for heavy duty use. Threaded mounting sleeves 15/32" dia. by 15/32" long. Nickel-plated. Supplied with mounting nuts. Bat handle. Molded bakelite construction. Screw terminals.

Cat. No.	Fig.	Circuit	Rating 125V	Rating 250V	Net Price Each 1-24	25-99	Quantities of 100-1000
5037	A	S.P.S.T.	10 Amp.	5 Amp.	$ .79	$ .71	$ .64
5038	B	D.P.S.T.	12 Amp.	6 Amp.	.98	.88	.80
5040	C	D.P.S.T.	15 Amp.	10 Amp.	1.54	1.39	1.26

A. H. & H. HEAVY DUTY POWER SWITCHES

Recommended for use where heavy current is to be carried. U. L. Approved. Rated at 10 Amps. 125V and 5 Amps. at 250V. Molded bakelite encased. Nickel-plated. Mounting sleeve 3/4" dia. by 3/8" long. Supplied complete with mounting nuts.

Type A — Neutral Off in Center

Cat. No.	Circuit	Net Price Each Quantities of 1-24	25-99	100-1000
5042	D.P.D.T.	$3.63	$3.27	$2.95
5043	3P.D.T.	6.00	5.40	4.86
5044	4P.D.T.	7.38	6.74	6.07

Type B — No Center Off

Cat. No.	Circuit	Net Price Each Quantities of 1-24	25-99	100-1000
5041	D.P.D.T.	$3.63	$3.27	$2.95
5047	4P.D.T.	7.38	6.74	6.07

C

D

A. H. & H. TOGGLE SWITCHES

U. L. Approved. Molded bakelite toggle swiches. 15/32" dia. threaded sleeve 15/32" long with positioning slot. Supplied complete with mounting ring and nut. All rated 6 Amp. at 125V AC and 3 Amp. at 250V AC.

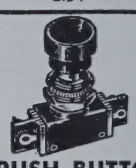
Ball Handle Types (Fig. C.)

Cat. No.	Circuit	Net Price Each on Quantities of 1-24	25-99	100-1000
5026	S.P.S.T.	$ .52	$ .47	$ .42
5027	S.P.D.T.	.63	.56	.51
5028	D.P.S.T.	.77	.69	.62
5029	D.P.D.T.	.89	.80	.72

Bat Handle Types (Fig. D.)

Type 5053 has spring return and 1" long threaded sleeve.

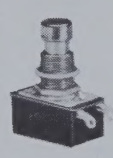
Cat. No.	Circuit	Net Price Each on Quantities of 1-24	25-99	100-1000
5030	S.P.S.T.	$ .52	$ .47	$ .42
5031	S.P.D.T.	.63	.56	.51
5032	D.P.S.T.	.77	.69	.62
5033	D.P.D.T.	.89	.80	.72
*5053	D.P.D.T.	1.33	1.20	1.08



A. H. & H. PUSH BUTTON SWITCH

Midget size, momentary contact two-circuit slow-make, slow-brake. U. L. Approved. Nickel-plated. Rated 1 Amp. 125V. 15/32" dia. threaded sleeve 15/52" long with positioning slot. Cat. No. 5035 is supplied less push button, Cat. No. 5036B with black button and Cat. No. 5036R with red button.

Cat. No.	Net Price Each Quantities of 1-24	25-99	100-1000
5035	$ .54	$ .48	$ .44
5036R	.68	.62	.55
5036B	.68	.62	.55



A. H. & H. HEAVY DUTY PUSH-BUTTON SWITCH

U. L. Approved. D.P.D.T. switch with overthrow. Rated 6 Amps. 125V. Nickel-plated. Molded bakelite with screw terminals. Threaded sleeve 15/32" long x 15/32" dia.

Cat. No.	Net Price Each Quantities of 1-24	25-29	100-1000
5046	$1.66	$1.49	$1.34

A. H. & H. ROTARY KEY SWITCH

S.P.S.T. lock-type laminated switch. Rated 3 Amps. 250V. Nickel-plated. Solder lug terminals. 15/32" dia. threaded sleeve 15/32" long x 15/32" dia.

Cat. No.	Net Price Each Quantities of 1-24	25-99	100-1000
5017	$ .76	$ .69	$ .62

A. H. & H. HEAVY DUTY MOMENTARY PUSH BUTTON SWITCH

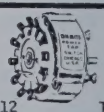
D.P.S.T. normally open momentary contact push-button switch. Molded bakelite construction with screw terminals. Rated 12 Amp. 125V, 6 Amp. 250V and 1HP at 250V. U. L. Approved. Ideal for use as a safety switch on transmitters, racks, transformers, etc. 15/32" dia. threaded sleeve 7/16" long with slot, supplied with mounting nuts.

Cat. No.	Net Price Each Quantities of 1-24	25-99	100-1000
5039	$1.45	$1.31	$1.18

OHMITE

POWER TAP SWITCHES

Rotary Non-Shorting Type, All Ceramic Insulation



Large silver to silver contacts and "slow-break" action especially designed for A.C. use. Shafts are all well-insulated and are electrically dead. Contacts and mechanisms are entirely closed and protected (except for the Model 111).

TYPE AND SIZE CODE

	Depth Behind Panel	Rating	Sw. Dia.	Shaft Dia.
Model 111	1 1/8"	10 Amps.—150 V	1 3/4"	1/4"
Model 212	1 3/4"	15 Amps.—150 V	2 1/4"	1/4"
Model 312	2 1/4"	25 Amps.—300 V	3 5/16"	1/4"
Model 412	2 7/16"	50 Amps.—300 V	4 3/16"	1/4"
Model 608	3 5/16"	100 Amps.—300 V	6"	3/8"

No. Taps	Type 111 Net Ea.	Type 212 Net Ea.	Type 312 Net Ea.	Type 412 Net Ea.	Type 608 Net Ea.
2	$2.44	$6.08	$8.90	$11.47	$26.20
3	2.44	6.08	8.90	11.47	26.20
4	2.44	6.08	8.90	11.47	26.20
5	2.51	6.32	9.12	11.47	27.14
6	2.51	6.32	9.12	11.47	27.14
7	2.62	6.57	9.37	12.30	28.09
8	2.62	6.57	9.37	12.30	28.09
9	2.72	6.79	9.60	12.53	
10	2.72	6.79	9.60	12.53	
11	2.80	7.02	9.82	13.10	
12	.....	7.02	9.82	13.10	

Note: Models 212, 312, 412 and 608 available in 2 and 3 tandem assemblies.

MILITARY TYPE TOGGLE SWITCHES

Bat Lever Jan Type. One-hole stem-mounting switches conforming to Joint Army and Navy and Aircraft Switch Specifications 15/32" dia. Threaded stem 15/32" long, except types shown with asterisk (*) which are ¼" long.

Circuit Code

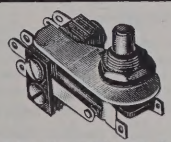
Letter after Type No. denotes circuit. For example: Cat. No. ST-12A is a S.P.S.T. Standard 2-Position Switch.

Switch Circuit

A	S.P.S.T.—Standard 2-Position.
B	S.P.S.T.—Normally Closed. Momentary Off.
C	S.P.S.T.—Normally Open. Momentary On.
D	S.P.D.T.—Standard 2-Position.
E	S.P.D.T.—Both Throws On. Center Off.
F	S.P.D.T.—One Throw On. One Throw Momentary On.
G	S.P.D.T.—Both Throws Momentary On. Center Off.
H	S.P.D.T.—One Throw On. One Throw Momentary On. Center Off.
K	D.P.S.T.—Standard 2-Position.
L	D.P.S.T.—One Throw On. One Throw Momentary Off.
M	D.P.S.T.—One Throw On. One Throw Momentary On. Center Off.
N	D.P.D.T.—Standard 2-Position.
P	D.P.D.T.—Both Throws On. Center Off.
R	D.P.D.T.—Both Throws On. Center Off.
R	D.P.D.T.—One Throw On. One Throw Momentary On.
S	D.P.D.T.—Both Throws Momentary On. Center Off.
T	D.P.D.T.—One Throw On. One Throw Momentary On. Center Off.
V	2-Circuit Switch.

Cat. No.	Terminals	Net Price Ea. Quantities of 1-24	25-99	100 & Over
ST-10A	Lug Back Connected	$ .73	$ .68	$ .61
ST-12A	Lug Back Connected	.73	.68	.61
ST-12B	Lug Back Connected	.95	.86	.77
ST-12C	Lug Back Connected	.95	.86	.77
ST-12D	Lug Back Connected	.83	.75	.68
ST-12F	Lug Back Connected	1.05	.95	.86
ST-12V	Lug Back Connected	.85	.77	.69
ST-13A*	Lug Back Connected	$ .73	$ .68	$ .61
ST-13D*	Lug Back Connected	.83	.75	.68
ST-13V*	Lug Back Connected	.85	.75	.68
ST-16A	Lug Side Connected	$ .73	$ .68	$ .61
ST-16B	Lug Side Connected	.95	.86	.77
ST-16C	Lug Side Connected	.95	.86	.77
ST-16D	Lug Side Connected	.83	.75	.68
ST-16F	Lug Side Connected	1.05	.95	.86
ST-16V	Lug Side Connected	.85	.75	.68
ST-17A*	Lug Side Connected	$ .73	$ .68	$ .61
ST-17D*	Lug Side Connected	.83	.75	.68
ST-17V*	Lug Side Connected	.85	.75	.68
ST-22K	Lug Back Connected	$1.03	$ .93	$ .84
ST-22L	Lug Back Connected	1.25	1.13	1.02
ST-22M	Lug Back Connected	1.25	1.13	1.02
ST-22N	Lug Back Connected	1.13	1.02	.92
ST-22R	Lug Back Connected	1.35	1.22	1.10
ST-23K*	Lug Back Connected	$1.03	$ .93	$ .84
ST-23N*	Lug Back Connected	1.13	1.02	.92
ST-26K	Lug Side Connected	$1.03	$ .93	$ .84
ST-26L	Lug Side Connected	1.25	1.13	1.02
ST-26M	Lug Side Connected	1.25	1.13	1.02
ST-26N	Lug Side Connected	1.13	1.02	.92
ST-26R	Lug Side Connected	1.35	1.21	1.09

Cat. No.	Terminals	Net Price Ea. Quantities of 1-24	25-99	100 & Over
ST-27K*	Lug Side Connected	$1.03	$ .93	$ .84
ST-27N*	Lug Side Connected	1.13	1.02	.92
ST-40A	Screw	$ .78	$ .70	$ .63
ST-40B	Screw	.85	.77	.69
ST-40C	Screw	.85	.77	.69
ST-40D	Screw	.93	.84	.76
ST-40E	Screw	.93	.84	.76
ST-40F	Screw	1.00	.90	.81
ST-40G	Screw	1.00	.90	.81
ST-40H	Screw	1.00	.90	.81
ST-42A	Lug	$ .73	$ .66	$ .59
ST-42B	Lug	.80	.72	.65
ST-42C	Lug	.80	.72	.65
ST-42D	Lug	.88	.79	.71
ST-42E	Lug	.88	.79	.71
ST-42F	Lug	.95	.86	.77
ST-42G	Lug	.95	.86	.77
ST-42H	Lug	.95	.86	.77
ST-50K	Screw	$ .95	$ .86	$ .77
ST-50L	Screw	1.13	1.02	.92
ST-50M	Screw	1.13	1.02	.92
ST-50N	Screw	1.13	1.02	.92
ST-50P	Screw	1.13	1.02	.92
ST-50R	Screw	1.30	1.17	1.05
ST-50S	Screw	1.30	1.17	1.05
ST-50T	Screw	1.30	1.17	1.05
ST-52K	Lug	$ .88	$ .79	$ .71
ST-52L	Lug	.98	.88	.79
ST-52M	Lug	.98	.88	.79
ST-52N	Lug	.98	.88	.79
ST-52P	Lug	.98	.88	.79
ST-52R	Lug	1.13	1.02	.92
ST-52S	Lug	1.13	1.02	.92
ST-52T	Lug	1.13	1.02	.92



SWITCHCRAFT
"RS-SWITCHES"

A rugged rotary switch design available in the most common circuits for applications requiring dependable switching.

TWO-POSITION TYPE

PART NO. NON-LOCKING	LOCKING	SCHEMATIC CIRCUIT	Net Ea.
2001	2001L		$ .59
2002	2002L		.59
2003	2003L		.71
2004	2004L		.73
2005	2005L		.73
2006	2006L		.97
THREE-POSITION TYPE			
2034	2034L		.73
2035	2035L		.73
2036	2036L		.97

SWITCHCRAFT
"LEV-R SWITCHES"

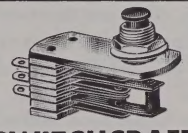
An unusually small, lever action Switch, available in numerable circuits, to provide the simplest in switching design.

Non-locking	Locking	SCHEMATIC CIRCUIT	Net Ea.
PART NO	TWO POSITION TYPE		
3001	3001L		$1.15
3002	3002L		1.15
3003	3003L		1.32
3004	3004L		1.47
3005	3005L		1.47
3006	3006L		1.62
	THREE POSITION TYPE		
3033	3033L		1.47
3034	3034L		1.53
3035	3035L		1.53
3036	3036L		1.70
3037	3037L		1.73
	INTER-COMM. SWITCHES		
	3033T		1.47
	3037T		1.73

SWITCHCRAFT
"LITTEL SWITCHES"

An ideal switch for applications where limited space is available, such as microphones, Radio & Automobile Test Equipment, Inter-Communication Systems, Electro-Therapy Equipment, etc.

PART NO. (RED P. BUTTON) ON-LOCKING	PART NO. (BLACK P. BUTTON) NON-LOCKING	CONTACT ARRANGEMENT	SCHEMATIC CIRCUIT	Net Ea.
101	201	Single "Make"		$ .50
102	202	Single "Break"		.50
103	203	One "Break-Make"		.53



SWITCHCRAFT
"FF SWITCHES"

A rugged flat frame readily adaptable to any stack or "pile-up" of contact springs provides a simple, direct acting, push button switch

PART NO.	DESCRIPTION	SCHEMATIC CIRCUIT	Net Ea.
1001	Single "Make"		$ .56
1002	Single "Break"		.56
1003	Single "Break-Make" S.P.D.T.		.65
1004	Two "Makes"		.71
1005	Two "Breaks"		.71
1006	Two "Break-Makes" D.P.D.T.		.86
1009	Three "Break-Makes" SPDT (3 Form C)		1.18

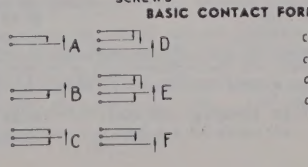
SWITCHCRAFT
"TELEVER SWITCHES"

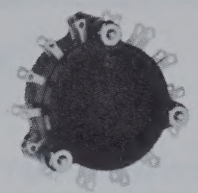
A rugged telephone type lever switch featuring an unusual "T-Beam" frame construction. This unique design results in a relatively light construction with the ruggedness of a structural "T-Beam," ideal for applications requiring dependable switching.

TWO POSITION TYPE

PART NUMBER Non-Locking	Locking	CONTACT ASSEMBLY	Net Ea.
6006	6006L	2-C	$2.94
6008	6008L	4-A	3.30
6009	6009L	3-C	3.53
60012	60012L	4-C	4.00
60024	60024L	8-C	5.88
THREE POSITION TYPE			
		POS. 1 / POS. 2	
6036	6036L	1-C / 1-C	2.94
6038	6038L	2-A / 2-A	3.30
60312	60312L	2-C / 2-C	4.00
60324	60324L	4-C / 4-C	5.88
530	ESCUTCHEON PLATE WITH 4 MTG. SCREWS		.36

BASIC CONTACT FORMS





J-B-T
MOLDED ROTARY SELECTOR SWITCHES
Single and Multi-Gang — Shorting and Non-Shorting

- **All moving contacts enclosed — minimizes dirt and corrosion.**
- **Contact lugs permanently integrated into switch assembly.**
- **Sturdy construction with 3-post deck suspension, double grip collector arms, and rectangular drive shaft through decks for precision indexing.**
- **Interchangeable, electrically and mechanically, with J-B-T 14- and 20-position laminated switches, widely used by industry and Armed Services.**

MOLDED SWITCHES, MS-14 TYPE
(14 positions; angular indexing 25° 43')
Continuous rotation, no stops

Non-Shorting—Break before make. **Shorting**—Make before break

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-14-1	14	1	1	N-S	1⅞"	$1.50
MS-14-1S*	14	1	1	S	1⅞"	1.50
MS-14-2	14	1	2	N-S	1⅛"	1.80
MS-14-2S*	14	1	2	S	1⅛"	1.80
MS-14-3	14	1	3	N-S	1⅜"	2.25
MS-14-4	14	1	4	N-S	1¾"	2.90
MS-14-6	14	1	6	N-S	2⅜"	4.25

* Standard items, but not regularly stocked.

MOLDED SWITCHES, MS-20 TYPE
(20 positions; angular indexing 18°)
Continuous rotation, no stops (except 6DT Types)

Non-Shorting—Break before make. **Shorting**—Make before break

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-20-1	20	1	1	N-S	1⅞"	$1.95
MS-20-1-6DT	2	6	1	N-S	1⅞"	2.70
MS-20-1S*	20	1	1	S	1⅞"	1.95
MS-20-2	20	1	2	N-S	1⅛"	2.40
MS-20-2-6DT	2	6	2	N-S	1⅛"	3.90
MS-20-2S*	20	1	2	S	1⅛"	2.40
MS-20-3	20	1	3	N-S	1⅜"	3.25
MS-20-4	20	1	4	N-S	1¾"	3.95
MS-20-6	20	1	6	N-S	2⅜"	5.60

ADJUSTABLE STOP MOLDED SWITCHES, MAS-14 TYPE
(14 positions; angular indexing 25° 43')

IMPORTANT: Enclosed adjustable stop mechanism increases switch length 3/32" behind panel; decreases effective bushing length by 3/32"; and shortens shaft extending from bushing by 3/32". Rings RI-23 and RI-24 are supplied.

Non-Shorting—Break before make. **Shorting**—Make before break.

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MAS-14-1	14	1	1	N-S	1⅞"	$1.95
MAS-14-1S*	14	1	1	S	1⅞"	1.95
MAS-14-2	14	1	2	N-S	1⅛"	2.25
MAS-14-2S*	14	1	2	S	1⅛"	2.25
MAS-14-3	14	1	3	N-S	1⅜"	2.70
MAS-14-4	14	1	4	N-S	1⅜"	3.35
MAS-14-6	14	1	6	N-S	2⅛"	4.70

ETCHED DIAL PLATES

For SS-14 or MS-14 Series; and for SS-20 or MS-20 Series. Dull black finish — with raised bright metal numerals. 2¾" diameter.

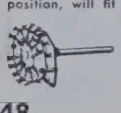
EP-13 off thru 13 ..... $0.21
EP-14 1 thru 14 ..... .21
EP-19 off thru 19 ..... .21
EP-20 1 thru 20 ..... .21

CENTRALAB
UNIVERSAL FLAT AND P.A. TYPE SWITCHES

1450 "ECONO-SWITCH"®—A 4 pole, 2 position economically designed switch which requires only 5/8" depth behind panel. Can be used as SPST and up to 4 pole, 2 position. Positive, non-shorting, leaf type index.
Net Each $0.60

1451 "PERMA-SWITCH"®—The famous Centralab long life coil spring switch with a minimum of 150,000 cycles. Similar in style to the 1450 switch, 4 pole 2 position. Designed for hard life and long use in test equipment and intercom use. Coil spring can be replaced without removing switch. Non-shorting, spring return index. **Net Each $1.03**

1448-1449 "ALL PURPOSE"—Intercom switches. Six pole three position, will fit practically every intercom application in use. Both units have replaceable coil spring indexing assuring 150,000 cycles minimum.



Cat. No.		Net Ea.
1448	Spring ret. both sides	$1.32
1449	Spring ret. one side	1.32

J-B-T
INSTRUMENT & TESTER SWITCHES
Rotary Selector — Single and Multi-Gang — Non-Shorting and Shorting

J-B-T Instrument-type Rotary Selector Switches are used widely in quality test equipment, portable instruments, inspection setups and avionics where trouble-free, dependable performance is of major importance. Available in two basic types—14 and 20 position—the design gives extra contacts in minimum space. One to six decks.

FEATURES:

LAMINATED SWITCHES

Reliability—Rigid, 3-post deck suspension, instead of the usual 2; all current carrying parts are brass or phosphor bronze, silver flashed and then heavily plated with pure silver to meet 100 hour salt spray test; ball bearing action, beryllium-copper balanced spring (SS-14); leaf-type (SS-20), and sharp detent assure positive indexing. Springs of both switches are generally replaceable without disturbing soldered connections. Laminated plastic decks and rotors selected for maximum mechanical and dielectric strength.

Exceptional Compactness—14-position switch takes 13 circuits and "off" in 2" circle; 20-position switch handles 19 circuits and "off" in 2-23/32" circle. Each deck above first adds only 5/16".

LAMINATED SWITCHES, SS-14 TYPE
(14 positions; angular indexing 25° 43')

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Boxed, Including Knob
SS-14-1	14	1	1	N-S	$1.50
SS-14-1A*	5†	2	1	N-S	1.55
SS-14-1S*	14	1	1	S	1.50
SS-14-1CS‡*	14	1	1	CS	1.85
SS-14-2	14	1	2	N-S	1.80
SS-14-2A*	5†	2	2	N-S	1.95
SS-14-2S*	14	1	2	S	1.80
SS-14-2CS‡*	14	1	2	CS	2.55
SS-14-3	14	1	3	N-S	2.25
SS-14-3S*	14	1	3	S	2.25
SS-14-4	14	1	4	N-S	2.90
SS-14-6	14	1	6	N-S	4.25

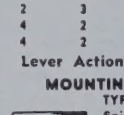
*Standard items, but not regularly stocked.
†Denotes correction in former catalogs; 5 positions include 4 "live" and 1 "off"
‡Complete shorting — all contacts shorted except one in use.

LAMINATED SWITCHES, SS-20 TYPE
(20-positions; angular indexing, 18°)

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Boxed, Including Knob
SS-20-1	20	1	1	N-S	$1.95
SS-20-1A*	6§	2	1	N-S	2.00
SS-20-1S*	20	1	1	S	1.95
SS-20-2	20	1	2	N-S	2.40
SS-20-2S*	20	1	2	S	2.40
SS-20-3	20	1	3	N-S	3.25
SS-20-4	20	1	4	N-S	3.95
SS-20-6	20	1	6	N-S	5.60

*Standard items, but not regularly stocked.
§Denotes correction in former catalogs; -6 positions include 5 "live" and 1 "off"

CENTRALAB
LEVER ACTION SWITCHES

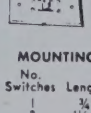


Coil spring and cam index design provides guaranteed minimum life of 150,000 switching cycles. Smooth, "clean" action. Coil type index spring easily replaceable. Mounting plates available. Furnished with black paddle-type knob (same style knob also available in red and white). Shorting—make before break. Non-shorting—break before make.

Number Poles	Number Positions	Type Indexing	Cat. No. Shorting	Cat. No. Non-Shorting
2	3	Positive	1452	1454
2	3	Spring Return	1453	1455
2	3	Positive Spring Return	1466	1467
4	2	Spring Return	1456	1457
4	2	Positive	1459	1458

Lever Action Switches.....Net Each $.73

MOUNTING PLATES FOR LEVER SWITCHES



TYPE A—Made of .035" die cut steel, black crackle finish. Eliminate alignment problems, provide ¾" spacing between switches. Available for 1 to 5 switch mounting. Height of all plates is 2⅝".

TYPE B—Specially furnished for mounting lever switches in electrical outlet boxes. Chrome plated wall plates will fit all standard boxes with mounting holes 3-5/16" between centers. Ideal for P.A. or Intercom installations.

MOUNTING PLATE—Type A

No. Switches	Length	Cat. No.	Net Ea.
1	¾"	P-1755	$ .21
2	1½"	P-1756	.24
3	2¼"	P-1757	.30
4	3"	P-1758	.36
5	3¾"	P-1759	.45

WALL PLATE—Type B

No. Switches	Cat. No.	Net Ea.
2	P-221	$ .45
1	P-222	.36

Size: 2¾" x 4½" overall.
¾" spacing between switches

SLIDE SWITCHES

Encased in tin-plated steel housings. Terminals are silver-plated. Buttons are black phenolic.

Cat. No.	Circuit	Net Prices in Quantities of 1 to 99	100 to 499	500 to 999	1000 & Up
5700	S.P.S.T.	$ .12	$ .108	$ .087	$ .078
5701	S.P.D.T.	.14	.126	.099	.084
5702	D.P.S.T.	.17	.153	.144	.12
5703	D.P.D.T.	.19	.171	.1470	.129

AMPHENOL
TAP CHANGE SWITCH

8-position single pole continuous switch with white markings clearly visible in window cap. Side set-screw for locking switch arm.

AMPHENOL Number	Description
35	Numerals 1 to 8, internal solder lugs
36-1	Numerals 1 to 8
36-2	Imp. marks 0-2-4-8-16-250-500

TAP CHANGE SWITCHES

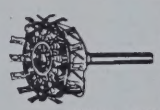
Cat. No.	Net Ea.	Net Ea. Per 50
36	.56	.47
36-1	.56	.47
36-2	.56	.47

FEDERAL
Anti-Capacity Switches

For multi-circuit switching where a combination of quick break and low blade-to-blade capacitance is required. Widely used in P.A. systems, sound recording, radio, radar and TV. Silver-plated phosphor bronze blades with pure silver contacts. Smooth, easy lever action with roller type cam arrangement and graphite impregnated bearing. NO are normally open types. NC normally closed.

Cat. No.	Circuit	Net Each
1424	4PDT NO	$2.86
1425	2PST NO	2.53
1426	2PST NC	2.53
1427	2PST NO	2.53
12494	8PST NO	6.20

CENTRALAB
23 POSITION SELECTOR SWITCH



1443 "23 CLIPPER"®—Single pole, 23 positions, shorting type contacts. High quality "W" type construction requires only 1" behind the panel. Double wiping silver plated contacts mean low loss. Include dial plate.

SMALL GENERAL PURPOSE SWITCHES

TYPE 1460—Single pole, 2 position, shorting contacts, positive index. Can be used as SPST or SPDT. For phono-radio, tone or sensitivity control.
Net Each $0.45

TYPE 1461—Single pole, 3 position, shorting contacts, positive index. Useful in miniature and band change, step type tone or sensitivity control, P.A. channel selector switch.
Net Each $0.60

TYPE 1462—Double pole, 2 position, shorting contacts, positive index. Can be used as SPST, SPDT, DPST, DPDT—for meter reversing, P.A. channel, or switching both lines on phono-radio. **Net Each $0.60**

TYPE 1463—Single pole, 2 position, non-shorting contacts, spring return index. Same size as Type 1460. Useful for meter reversing or momentary intercom talk switch. Non-shorting.
Net Each $0.60

TYPE 1464—Double pole, 2 position, non-shorting contacts, spring return index. Same physical size as Type 1462. Can also be used as SPST, SPDT or DPST. Used as meter switch and momentary line or remote speaker return on intercoms. **Net Each $0.60**

TYPE 1465—Single pole, 4 position, shorting, positive index, with SPST AC line switch attached. The selector switch has 3 active positions and "off." The line switch operates between "off" and first active selector position. Line switch is Underwriters' approved for 3 amperes at 125 volts, 1 ampere at 250 volts A.C. Type 1465 is a replacement for "on-off" step tone control switches used in many AM and FM receivers. Shaft is 2½" long from end of ¼" bushing.
Net Each $1.03

TYPE 1472—2 pole, 3 position, non-shorting contacts, positive index. An economical change switch for AM, FM, phono selector to amplifier in custom installations.
Net Each $0.73

TYPE 1473—Same as 1472 except shorting contacts.
Net Each $0.73

TYPE 1483—Single pole, 3 position, shorting contacts, positive index. For use with dual or auxiliary rear seat auto radio speakers. Permits operation of either speaker separately or both simultaneously. **Net Each $0.54**

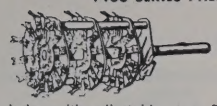
TYPE 1484—Single pole, 3 position remote speaker switch. Same as Cat. No. 1483 except with ¼" bushing and 7/16" split knurl shaft. 15/16" White split knurl pointer knob, Cat. No. P-197, is furnished.
Net Each $0.54

SMITH
MIDGET KNIFE SWITCHES

No.	Type	Type Base	Net Ea.
1241	SPST	Bakelite	$ .26
1242	SPDT	Bakelite	.32
1243	DPST	Bakelite	.38
1244	DPDT	Bakelite	.44
1245	DPDT	Porcelain	.44

CENTRALAB

ROTARY SELECTOR SWITCHES
1400 SERIES PHENOLIC INSULATION



Series 1400 offers compact design and quality construction. Laminated phenolic insulation. Mounting Bushings ⅜" x 32 thd. x ⅜" long. Shafts 1⅞" from end of bushing. Positive 30° index with adjustable stop. Revisions or additions can easily be made due to availability of all parts separately (see listings under hardware switch sections). Packaged with mtg. nut, lockwasher, 1¼" black bar knob. Shorting—make before break. Non-shorting—break before make.

Total Poles	No. of Positions	Total Sections	Poles per Section	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	2 to 6	1	1	1400	1401	$ .88
1	2 to 11	1	1	1402	1403	1.03
2	2 to 5	1	2	1404	1405	1.03
3	2 to 3	1	3	1406	1407	1.18
4	2 only	1	4	1408	1409	1.18
2	2 to 6	2	1	1410	1411	1.47
2	2 to 11	2	1	1412	1413	1.47
4	2 to 5	2	2	1414	1415	1.47
6	2 to 3	2	3	1416	1417	1.47
8	2 only	2	4	1418	1419	1.62
3	2 to 6	3	1	1420	1421	1.76
3	2 to 11	3	1	1422	1423	1.91
6	2 to 5	3	2	1424	1425	2.06
4	2 to 6	4	1	1426	1427	2.20
4	2 to 11	4	1	1428	1429	2.50
8	2 to 5	4	2	1430	1431	2.65

PHENOLIC SECTIONS ONLY — 1400 SERIES

.064" Rotor Slot.

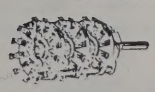
Use with above switches or P-121, 122, 123 Index.

Poles	Positions	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	2 to 6	A	H	$ .60
1	2 to 11	B	J	.60
2	2 to 5	C	K	.60
3	2 to 3	D	L	.60
4	2 only	E	M	.60
4	2 to 3	EE	—	.88
1	2 to 5	F	—	.60
	(On F section unused contacts on one side of common connected and shorted out.)			
1	2 to 10	G	—	.60

(On G section all unused contacts connected and shorted out.)

	Net Each
N and P Special—Combine for resistance decade switch	$ .60
Q—Special for capacitance decade switch	.60
P-1 Special—10 pos. progressively shorting out 9 positions	.60

ROTARY SELECTOR SWITCHES
2500 SERIES — STEATITE INSULATION



2500 Series Switches have highest quality (grade L-5) Steatite insulation, meet critical requirements of r.f. circuit applications. Bushing ⅜" x 32 thd. x ⅜" long. Shaft 1⅞". Positive 30° Index with adjustable stop. Separate parts also available. Packaged with Mtg. nut, lockwasher and 1¼" black bar knob. Shorting—make before break. Non-Shorting—break before make.

Total Poles	No. of Positions	Total Sections	Poles per Section	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	2 to 6	1	1	2500	2501	$1.32
1	2 to 11	1	1	2502	2503	1.32
2	2 to 5	1	2	2504	2505	1.32
3	2 to 3	1	3	2506	2507	1.32
2	2 to 6	2	1	2510	2511	2.06
2	2 to 11	2	1	2512	2513	2.06
4	2 to 5	2	2	2514	2515	2.06
6	2 to 3	2	3	2516	2517	2.06
3	2 to 6	3	1	2520	2521	2.94
3	2 to 11	3	1	2522	2523	2.94
6	2 to 5	3	2	2524	2525	2.94

STEATITE SECTIONS ONLY FOR 2500 SERIES

Standard: .064" Rotor Slot. Use with above switches or P-121, 122, 123 Index.

Number Poles	Number Positions	Standard Shorting	Standard Non-Shorting
1	2 to 6	T	X
1	2 to 11	U	Y
2	2 to 5	R	RR
3	2 to 3	S	SS
4	2	V	Z
1	2 to 10	GG	—
	(All unused contacts connected and shorted out)		
1	2 to 10	—PIS	—
	(1 off—9 progressively shorting positions)		

STANDARD INDEX ASSEMBLIES

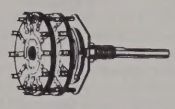
2-piece shaft, .064" thick rotor shaft for use with standard phenolic or steatite sections. Individually cartoned, all hardware included.

Sugg'd No. Sections	Indexing	Cat. No.	Net Ea.
1 to 3	30°	P-121	$ .88
4 to 6	30°	P-122	1.18
7 to 9	30°	P-123	1.47
Basic Index only, no hardware		1435W	.66

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

MINIATURE PHENOLIC ROTARY SWITCHES
PA-1000 SWITCHES — PHENOLIC INSULATION

A complete, new line that matches the 1400 Series in switching, and the PA-2000 Series in physical size. Index assemblies and hardware are indentical to PA-2000 Series accessories. High-strength, high-resin, laminated phenolic insulation exceeds Phenolic Standards Grade XXXP. One-piece shaft construction permits accurate indexing. Adjustable stop permits selection of positions or continuous rotation (11 active positions, 1 off-position). Grade L-5 steatite spacers are used with nickel-plated brass shafts, bushings, tie bolts, and nuts. All other metal parts are treated to pass 50-hour salt-spray test. Rating same as 1400 Series. General use, 6 watts. Excellent r.f. characteristics. Shaft 1⅞" from bushing.



MINIATURE SWITCHES WITH 30° INDEXING

Total Number Poles	Total Positions	Number Sections	Poles Per Section	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	2-11	1	1	PA-1000	PA-1001	$1.32
2	2-5	1	2	PA-1002	PA-1003	1.32
2	2-11	2	1	PA-1004	PA-1005	1.76
3	2-3	1	3	PA-1006	PA-1007	1.32
3	2-11	3	1	PA-1008	PA-1009	2.20
4	2	1	4	PA-1010	PA-1011	1.32
4	2-5	2	2	PA-1012	PA-1013	1.76
4	2-11	4	1	PA-1014	PA-1015	2.65
5	2-11	5	1	PA-1016	PA-1017	3.09
6	2-3	2	3	PA-1018	PA-1019	1.76
6	2-5	3	2	PA-1020	PA-1021	2.20
6	2-11	6	1	PA-1022	PA-1023	3.52
8	2	2	4	PA-1024	PA-1025	1.76
8	2-5	4	2	PA-1026	PA-1027	2.65
10	2-5	5	2	PA-1030	PA-1031	3.09
12	2	3	4	PA-1028	PA-1029	2.20
12	2-5	6	2	PA-1032	PA-1033	3.53
1	2-10	1	1	PA-1034		1.32

(One off—nine progressively shorting positions pick up and hold each progressive position)

MINIATURE SWITCHES WITH 60° INDEXING

1	2-6	1	1	PA-1035	$1.32
2	2-6	2	1	PA-1037	1.76

SEPARATE MINIATURE PHENOLIC SECTIONS

Use with Index Assemblies No. PA-301, PA-302 for assembly of special units of your own spacing and design.

Number Poles	Number Positions	Indexing	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	2-11	30°	PA-30	PA-31	$ .59
2	2-5	30°	PA-32	PA-33	.59
3	2-3	30°	PA-34	PA-35	.59
4	2	30°	PA-36	PA-37	.59
1	2-5	30°	PA-38	PA-39	.59
(All unused contacts one side of common connected and shorted out)					
1	2-11	30°	PA-40	PA-41	.59
(All unused contacts connected and shorted out)					
1	2-10	30°	PA-43		.59
(One off—nine progressively shorting positions pick up and hold each progressive position)					
1	2-6	60°	PA-45		.59

MEDIUM DUTY ROTARY POWER SWITCHES

STEATITE—750 Watts at 115 Volts A.C.

An accurate, long-life unit for transmitter, power supply, and specialized application. Has positive, non-stall 20° indexing, double wiping solid silver contacts. Mounting bushing ⅜"-32 thd. x ⅜" long. 2¼" between locating rods. With adjustable stop and dial plate.

Total Poles	Number Positions	Total Sections	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	2-17	1	JV-9000	JV-9001	$ 8.23
3	2-5	1	JV-9002	JV-9003	8.23
2	2-17	2	JV-9004	JV-9005	13.22
6	2-5	2	JV-9006	JV-9007	13.22
3	2-17	3	JV-9008	JV-9009	18.81
9	2-5	3	JV-9010	JV-9011	18.81
4	2-17	4	JV-9012	JV-9013	24.67
12	2-5	4	JV-9014	JV-9015	24.67
5	2-17	5	JV-9016	JV-9017	32.34
15	2-5	5	JV-9018	JV-9019	32.34
6	2-17	6	JV-9020	JV-9021	38.42

SECTIONS ONLY FOR JV-9000 SERIES

SHORTING				NON-SHORTING			
No. Poles	Positions	Cat. No.	Net Ea.	No. Poles	Positions	Cat. No.	Net Ea.
1	2-17	KV-8	$5.88	1	2-17	KVN-8	$5.88
3	2-5	KV-9	5.88	3	2-5	KVN-9	5.88

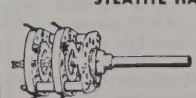
INDEX ASSEMBLY ONLY FOR JV-9000 SERIES

Includes shaft, tie rods, spacers, nuts and lockwashers, adjustable stop pin, 2" black bar knob and dial plate.

Cat. No. KV-7 Dial Plates—2¾" Diameter—20° Markings — Net Ea.

P-230	Marked 1 to 5	$ .13
P-231	Marked 1 to 17	.13

STEATITE HAM-TYPE SWITCHES



90° Indexing Ham Switches will handle 15 watts and can be operated with tubes up to 1000 volts and inputs up to 150 watts. Extra heavy steatite sections and spacers assure high breakdown point. Heavily silver plated contacts. Non-shorting type switching.

Poles Per Sec.	Total Sec.	Positions	Cat. No.	Net Ea.
1	1	2 to 4	2542	$1.32
1	2	2 to 4	2543	2.06
1	3	2 to 4	2544	2.79
1	4	2 to 4	2545	3.53
1	5	2 to 4	2546	4.26

Separate Sections

1 pole, 2 to 4 positions, non-shorting type with 4 fibre washers.

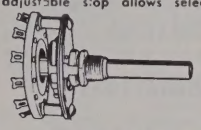
Cat. No. XX Net $ .73

Separate Index Assemblies

For No. Section	Cat. No.	Net Ea.
1 or 2	P-170	.88
3 or 4	P-171	1.18
5 or 6	P-172	1.47

MINIATURE ROTARY SWITCHES
PA-2000 SWITCHES — STEATITE INSULATION

New Small Size! 1-7/16" d. gives saving of 7/16" over standard switches. One piece shaft construction for accurate indexing; adjustable stop allows selection of positions or continuous rotation; meet 50 hour salt spray tests. Available as complete switches or separate assemblies. Same ratings as the larger 2500 series switches plus excellent r.f. characteristics. Shaft 1⅞" from bushing.



MINIATURE SWITCHES WITH 30° INDEXING

Total Number Poles	Total Positions	Number Sections	Poles Per Section	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	2-12	1	1	—PA-2000	—PA-2001	$1.47
2	2-6	1	2	—PA-2002	—PA-2003	1.53
2	2-12	2	1	—PA-2004	—PA-2005	2.20
3	2-5	1	3	—PA-2006	—PA-2007	1.62
3	2-12	3	1	—PA-2008	—PA-2009	2.94
4	2-6	2	2	—PA-2010	—PA-2011	2.29
4	2-12	4	1	—PA-2012	—PA-2013	3.67
5	2-3	1	5	—PA-2014	—PA-2015	1.68
5	2-12	5	1	—PA-2016	—PA-2017	4.41
6	2	1	6	—PA-2018	—PA-2019	1.68
6	2-5	2	3	—PA-2020	—PA-2021	2.35
6	2-6	3	2	—PA-2022	—PA-2023	3.09
6	2-12	6	1	—PA-2024	—PA-2025	5.14
8	2-6	4	2	—PA-2026	—PA-2027	3.88
9	2-5	3	3	—PA-2028	—PA-2029	3.09
10	2-3	2	5	—PA-2030	—PA-2031	2.50
10	2-6	5	2	—PA-2032	—PA-2033	4.56
12	2	2	6	—PA-2034	—PA-2035	2.50
12	2-6	6	2	—PA-2036	—PA-2037	5.29
15	2-3	3	5	—PA-2038	—PA-2039	3.38
18	2	3	6	—PA-2040	—PA-2041	3.38

SPECIAL

1	2-10	1	1	—PA-2042	1.47
	(1 off, 9 progressively shorting positions)				
2	4	2	1	—PA-2050	1.47
	(For switching dual lines)				
2	2-12	2	1	—PA-2049	3.38
	(Solid-silver clips and contacts)				

MINIATURE SWITCHES WITH 60° INDEXING

1	2-6	1	1	—PA-2043	1.47
2	2-6	2	1	—PA-2045	2.20
	(1½" spacing between sections)				

SEPARATE STEATITE SECTIONS FOR MINIATURE SWITCH 30° INDEXING

Number Poles	Number Positions	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	2-12	—PA-0	—PA-1	$ .79
2	2-6	—PA-2	—PA-3	.79
3	2-5	—PA-4	—PA-5	.88
5	2-3	—PA-6	—PA-7	.88
6	2	—PA-8	—PA-9	.88
1	2-5	—PA-10		.79
(Unused contacts one side of common connected and shorted out)				
1	2-11	—PA-11	—PA-18	.79
(All unused contacts connected and shorted out)				
1	2-10	—PA-12		
(1 off, 9 progressively shorting positions)				.79

60° INDEXING

1	2-6	—PA-17	.79

SOLID SILVER CLIPS AND CONTACTS 30° INDEXING

1	2-11	—PA-16	1.47
2	2-5	—PA-14	1.47
4	2	—PA-15	1.47

SEPARATE INDEX ASSEMBLIES FOR MINIATURE SWITCH

Suggested No. Sections	Indexing	Rear Shaft Length	Cat. No.	Net Ea.
1 to 3	30°	2"	—PA-300	$ .88
4 to 6	30°	4"	—PA-301	1.18
7 to 9	30°	6"	—PA-302	1.47
1 to 3	60°	2"	—PA-304	.88
4 to 6	60°	4"	—PA-305	1.18
ADJUSTABLE STOP PLATE			—P-319	.15
INTERSECTION SHIELD			—P-320	.15

"DD" DELUXE SWITCH PARTS

"Double-D" describes CRL's extra heavy (¼" thick) rotor shaft switch and the corresponding hole in the section rotor. Also, deluxe switches have one-piece, positive indexing shaft and index assembly.

DELUXE SECTIONS

PHENOLIC

No. Poles	Positions	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	6	AD	ND	$ .60
1	11	BD	JD	.60
2	5	CD	KD	.60
3	3	DD	LD	.60
4	2	ED	MD	.60
4	3	EED	—	.88
1	5	FD	—	.60
Unused contacts shorted out 1 side of common				
1	10	GD	—	.60
All unused contacts shorted out				
Combine for resistance decade		ND PD	—	.60
For capacitance decade		QD	—	.60
1	10	PID	—	.60
#1 off, 9 progressively shorting.				

STEATITE

No. Poles	Positions	Cat. No. Shorting	Cat. No. Non-Shorting	Net Ea.
1	6	TD	XD	$ .79
1	11	UD	YD	.79
2	5	RD	RRD	.79
3	3	SD	SSD	.79
4	2	VD	ZD	.79
1	10	GGD	—	.79
All unused contacts shorted out.				
NSD-PSD Combine for resistance decade				.79
QSD For capacitance decade				.79
1	10	PISD	—	.79
#1 off, 9 progressively shorting.				

DELUXE INDEX ASSEMBLIES

Includes all hardware to use with separate sections listed above

Rotor Shaft Length	For No. Sections	Cat. No.	Net Ea.
2"	1 - 3	P-270	$ .88
4"	1 - 6	P-271	1.18
8"	7 - 9	P-272	1.47

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Sun Radio & ELECTRONICS CO. INC.

POTTER & BRUMFIELD STANDARD RELAYS

For Every Electrical and Electronic Application

NOTE: The relays shown here are standard relays in stock and ready for immediate shipment. From them, a type can be chosen to meet the needs of most Electrical or Electronic applications. All relay contacts are rated 115 volt-60 cycle, non-inductive load.

To operate 110V DC relays on 220 V DC, put a 5 watt wire-wound resistor of a value approximately the relay coil resistance in series with the relay coil.

CONTACT LEGEND—S-Single; D-Double; P-Pole; T-Throw; N-Normally; O-Open; C-Closed: B-Break; M-Make.

PS Series—POWER CONTACTORS

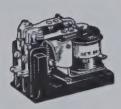
PS 11

For use on power circuits where small overall dimensions are essential. All contacts are mounted on specially designed phenolic moulding assuring high insulations resistance and long creepage paths. Contacts rated at 15 amperes.

Overall dimensions maximum: $1\frac{1}{2}$" x $1\frac{5}{8}$" x $1\frac{13}{16}$" high. This relay will be shipped and billed from Laconia, New Hampshire.

	60 CYCLE AC RELAYS			DC RELAYS		
Contacts	6-24-115 V AC		230 V AC	6-24 V DC		110 V DC
	Type	Net	Net	Type	Net	Net
DPDT	PS11A	$4.90	$5.50	PS11D	$4.90	$5.70

SP Series—HEAVY DUTY, SHOCK-PROOF RELAYS



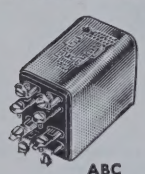
SP 11

For industrial equipment control circuits, transmitter keying circuits or any application requiring fast and positive repetitive action. Balanced armature withstands shock and vibration. Fine silver contacts rated 8 amp., double break, 5 amps., single break.

Dimensions: Max. $2\frac{7}{16}$" x $1\frac{5}{8}$" x $1\frac{21}{32}$" high. Mounted with two #6-32 tapped holes on $1\frac{13}{16}$" centers.

Contacts	AC RELAYS 6-12-24-115 Volts 60 cy.		DC RELAYS 6-12-24 Volts	
	Type	Net	Type	Net
DPDT	SP11A	$5.95	SP11D	$5.70

ABC Series—APPLIANCE RELAYS

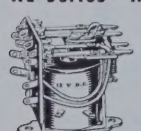


ABC

Enclosed in dust cover, designed for appliance applications where long life and quietness of operation is required. This rugged relay meets all Underwriter Laboratory requirements. Contacts rated 12 amperes. Overall dimension $1\frac{7}{16}$" wide x 3" long x $2\frac{3}{32}$" high above chassis. Mounting #8-32 stud $\frac{3}{8}$" long.

	60 CYCLE AC RELAYS			DC RELAYS		
Contacts	6-12-24-115 V AC		230 V AC	6-12-24 V DC		110 V DC
	Type	Net	Net	Type	Net	Net
DPDT	ABC11A	$6.40	$6.80	ABC11D	$6.40	$6.90

KL Series—MULTIPLE CONTACT RELAYS



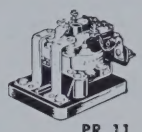
KL 17

Varied contact combinations and high dielectric phenolic insulation affords extreme versatility and utility.

Dimensions: KL5: $1\frac{15}{16}$" x $1\frac{7}{32}$" x $1\frac{15}{16}$" high; KL11: $1\frac{15}{16}$" x $1\frac{3}{8}$" x $1\frac{7}{8}$" high; KL14: $1\frac{15}{16}$" x $1\frac{7}{16}$" x $1\frac{15}{16}$" high; KL17: $1\frac{15}{16}$" x $1\frac{11}{16}$" x $1\frac{15}{16}$" high. Mounted with two #6-32 tapped holes on $1\frac{7}{16}$" centers.

	60 CYCLE AC RELAYS		DC RELAYS		
Contacts	6-12-24-115 V AC		6-12-24 V DC		110 V DC
	Type	Net	Type	Net	Net
SPDT	KL5A	$3.20	KL5D	$3.10	$3.70
DPDT	KL11A	4.15	KL11D	4.00	4.60
3PDT	KL14A	4.75	KL14D	4.55	5.15
4PDT	KL17A	5.90	KL17D	5.60	6.20

PR Series—HEAVY DUTY POWER RELAYS



PR 11

Heavy duty, fast acting relays designed for high contact capacity. Fine silver contacts rated 20 amperes double break and 15 amperes single break, molded phenolic base, contact carrier and coil bobbin. Spacing and creepage paths all to UL. specification.

Dimensions: All PR relays $2\frac{1}{2}$" wide, PR1, 3 & 5 are $2\frac{1}{2}$" long x $2\frac{7}{32}$" high, PR7 $2\frac{1}{2}$" long x $2\frac{7}{16}$" high, PR11 $3\frac{3}{8}$" long x $2\frac{7}{16}$". Mounting two $\frac{3}{16}$" diameter holes x $1\frac{7}{8}$" centers.

	60 CYCLE AC RELAYS			DC RELAYS		
Contacts	6-12-24-115 V AC		230 V AC	6-12-24 V DC		110 V DC
	Type	Net	Net	Type	Net	Net
SPST-NO	PR1A	$3.70	$4.10	PR1D	$3.70	$4.30
SPST-NO-DB	PR3A	3.80	4.20	PR3D	3.80	4.40
SPST	PR5A	4.00	4.40	PR5D	4.00	4.60
DPST	PR7A	4.50	4.90	PR7D	4.50	5.10
DPDT	PR11A	6.00	6.40	PR11D	6.00	6.60

MR Series—MEDIUM DUTY POWER RELAYS

MR

Designed of a medium duty fast acting power relay, applicable to many requirements. Silver contacts rated 8 amps.

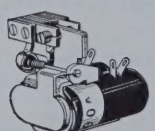
Dimensions: Single pole relays $2\frac{31}{32}$" x $1\frac{3}{16}$" x $1\frac{5}{8}$" high. Double pole relays $2\frac{19}{32}$" x $2\frac{3}{16}$" x $1\frac{15}{16}$" high. Two $\frac{3}{32}$" mounting holes. MR1, MR5 and MR14, $2\frac{5}{8}$" centers, MR7 and MR11 $2\frac{1}{4}$" centers.

	60 CYCLE AC RELAYS			DC RELAYS		
Contacts	6-12-24-115 V AC		230 V AC	6-12-24 V DC		110 V DC
	Type	Net	Net	Type	Net	Net
SPST-NO	MR1A	$2.85	$3.25	MR1D	$2.70	$3.20
SDST-NO-DB	MR3A	3.20	3.60	MR3D	2.95	3.45
SPDT	MR5A	2.90	3.30	MR5D	2.65	3.15
DPST-NO	MR7A	3.80	4.20	MR7D	3.50	4.00
DPDT	MR11A	3.90	4.30	MR11D	3.75	4.25
3PDT	MR14A	4.95	5.35	MR14D	4.60	5.10

75A047—COIL BOBBIN KIT

Twenty-four assorted molded phenolic (85°C rise—1000 V RMS) bobbins—three each of 8 different sizes; core diameters from $\frac{7}{32}$" to $\frac{7}{16}$". For industrials, experimenters and amateurs. Net $1.50.

SS Series—DC SUPER SENSITIVE RELAYS



SS

For circuits requiring low energy operation. Pure silver contacts rated 2 amps. Operates with 10G vibration resistance an 10 MW. Armature precision balanced on needle-point bearings; virtually friction-free movement. Dual series coils give greater sensitivity.

Dimensions: $1\frac{11}{16}$" x $1\frac{5}{16}$" x $1\frac{11}{16}$" high. Mounted with two #6-32 tapped holes on $2\frac{3}{32}$" centers.

Type	Contacts	Coil Resistance	Max. Pull In	Net
SS5D	SPDT	10,000 ohms	1.0 MA	$10.45

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

MS Series—MOTOR STARTING RELAYS

MS 4A

For hermetically sealed, explosion-proof or other capacitor start, induction-run motors. Operates on back EMF of running winding. Armature gap can be altered to change pull-in; 115-volt relay pulls in at 140 volts, releases at 40 volts; 230-volt relay pulls in at 255 volts, releases at 80 volts.

Dimensions: Max. $2\frac{3}{1}$" x $2\frac{1}{16}$" x 2" high. Mounted with two $\frac{3}{32}$" diameter holes on $1\frac{9}{16}$" centers.

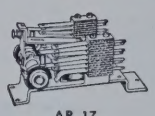
Type MS2A: SPST-NC (1 form B), pure silver contacts for motors up to 1 HP.

For 115-volt 60 cy. motor	Net $2.75
For 230-volt 60 cy. motor	Net $2.90

Type MS4A: SPST-NC-DB (1 form Y), silver cadmium oxide contacts for motors up to 3 HP.

For 115-volt 60 cy. motor	Net $3.60
For 230-volt 60 cy. motor	Net $3.70

AP Series—RATCHET, IMPULSE RELAYS



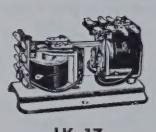
AP 17

For equipment requiring accurate repetitive switching. Stop mechanism assures positive positioning regardless of speed. Phenolic cams, wear-resistant nylon pawl and ratchet with pin-hinged armature. Fine silver contacts rated 5 amps.

Dimensions: Max. $3\frac{27}{32}$" x $2\frac{9}{32}$" x $2\frac{5}{16}$" high. Mounted with three $\frac{3}{32}$" diameter holes on $3\frac{3}{8}$" x $\frac{7}{8}$" triangular centers.

	60 CYCLE AC RELAYS			DC RELAYS		
Contacts	6-12-24-115 V AC		230 V AC	6-12-24 V DC		110 V DC
	Type	Net	Net	Type	Net	Net
DPDT	AP11A	$7.90	$8.30	AP11D	$7.90	$ 8.50
4PDT	AP17A	9.50	9.90	AP17D	9.50	10.10

LK Series—LATCHING RELAYS



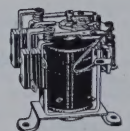
LK 17

Electrical latch, electrical release for automatic control. Fine silver contacts rated 5 amps. Coils withstand 500 V RMS breakdown.

Dimensions: $2\frac{29}{32}$" x $1\frac{3}{}$" x $1\frac{25}{32}$" high. Mounted with two $\frac{3}{32}$" diameter holes on $1\frac{3}{8}$" centers. When ordering, specify coil voltage. (Available only with coils of the same voltage. Example: LK17A, two 6 V 50-60 cy. coils; LK17D, two 6 V DC Coils).

	60 CYCLE AC RELAYS			DC RELAYS		
Contacts	6-12-24-115 V AC		230 V AC	6-12-24 V DC		110 V DC
	Type	Net	Net	Type	Net	Net
4PDT	LK17A	$9.50	$10.30	LK17D	$8.40	$9.60

LM Series—PLATE CIRCUIT RELAYS



LM 11

Fine Silver contacts, rated 5 amps. Tail spring adjustment screw provided to re-set pull-in.

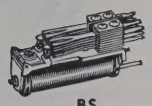
Dimensions: LM5 $2\frac{5}{16}$" x $1\frac{1}{4}$" x $2\frac{7}{16}$" high. Mounted with two #6-32 tapped holes on $1\frac{13}{16}$" centers. LM11 $2\frac{5}{16}$" x $2\frac{5}{32}$" x $2\frac{1}{2}$" high. Mounted with two #6-32 tapped holes on $1\frac{13}{16}$" centers.

Contacts	Type	Coil Resistance	Factory Adjustment Pull In MA	Net
SPDT	LM5	2500 ohms	6.3	$3.20
SPDT	LM5	5000 ohms	4.5	3.35
SPDT	LM5	10000 ohms	3.2	3.80
DPDT	LM11	2500 ohms	9.0	5.05
DPDT	LM11	5000 ohms	6.3	5.25
DPDT	LM11	10000 ohms	4.5	5.75

POTTER & BRUMFIELD STANDARD RELAYS

For Every Electrical and Electronic Application

BS Series—STANDARD TELEPHONE RELAYS



BS

Offered in two versions either voltage or current actuated for many difierent applications, 4PDT Palladium contacts rated 4 amps.

Dimensions: $4\frac{1}{8}$" x $1\frac{1}{16}$" x $2\frac{3}{4}$" high, mounted with two tapped #8-32 holes $\frac{3}{4}$" centers. This relay will be shipped and billed from Laconia, New Hampshire.

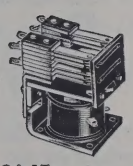
VOLTAGE ACTUATED

Contacts	Type	Coil Voltage	Net
4PDT	BS17D	6 DC	$7.60
4PDT	BS17D	24 DC	7.95

CURRENT ACTUATED

Contacts	Type	Coil Resistance Ohms	Factory Adjustment Pull-In MA	Net
4PDT	BA17L	10000	6.0	$8.95

GA Series—MULTIPLE LEAF RELAYS



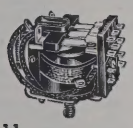
GA 17

Multiple leaf, all purpose relays permitting a wide range of contact combinations for many applications. Contacts rated 8 amperes.

Dimensions: Max. 1" x $1\frac{11}{16}$" x $1\frac{25}{32}$" high. Mounting: Std. #8-32 tapped core with locating half punch.

Contacts	60 CYCLE AC RELAYS 6-12-24-115 V AC Type	Net	230 V AC Net	DC RELAYS 6-12-24 V DC Type	Net	110 V DC Net
DPDT	GA11A	$3.15	$3.55	GA11D	$3.15	$3.65
3PDT	GA14A	3.75	4.15	GA14D	3.75	4.25
4PDT	GA17A	4.15	4.75	GA17D	4.35	4.85

KA Series—GENERAL PURPOSE RELAYS



KA 11

Series KA designed to meet the need for a low cost, high quality all purpose relay that will meet all Underwriter requirements.

Contacts rated 4 amps.

Dimensions: Max. $1\frac{1}{16}$" x $1\frac{27}{32}$" x $1\frac{3}{8}$" high. Mounting one #6-32 stud.

Contacts	60 CYCLE AC RELAYS 6-12-24-115 V AC Type	Net	DC RELAYS 6-12-24 V DC Type	Net	110 V DC Net
SPDT	KA5A	$2.85	KA5D	$2.60	$3.20
DPDT	KA11A	3.35	KA11D	3.05	3.65
3PDT	KA14A	3.70	KA14D	3.45	4.05

PW Series—MINIATURE RELAYS

PW

Pure silver SPDT contacts rated 2 amps. Withstands 10G vibration to 500 cps; 10G minimum shock. The PW is small, light weight. Hermetically sealed in deep drawn brass can. Fits standard 7-pin miniature tube socket.

Dimensions: Max. $1\frac{11}{16}$" high (above socket); $\frac{3}{4}$" diameter.

Nom. Voltage	PW5DS Pull In V	Net	Coils Resistance Ohms	PW5LS Pull In MA	Net
6.0	4.5	$ 9.75	5000	2.8	$10.05
24.0	18.0	10.25	10000	2.0	10.50

MH Series—MINIATURE TELEPHONE RELAYS

MH 17

Open Dimensions: $1\frac{5}{8}$" x $2\frac{5}{32}$" x $1\frac{3}{8}$" high.

Extremely versatile, either voltage or current actuated. Fits hundreds of electrical or electronic circuits. 4 Form C pure silver contacts rated 5 amps. Open relay size: Max. $1\frac{5}{8}$" x $2\frac{5}{32}$" x $1\frac{9}{16}$" high, mount with four #3-48 tapped holes on $\frac{3}{8}$" x $\frac{3}{8}$" centers. Enclosed relay: Hermetically sealed to resist all climatic conditions. Size: $1\frac{11}{16}$" x $1\frac{1}{32}$" x $2\frac{7}{32}$" high. Mounts with three #6-32 studs on $1\frac{1}{2}$" x $1\frac{1}{4}$" centers. Both open or sealed DC units withstand better than 10G vibration shock.

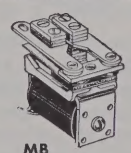
VOLTAGE ACTUATED

60 CYCLE AC RELAYS 6-12-24-115 V AC Type	Net	DC RELAYS 6-24 V DC Type	Net
MH17A open	$ 6.15	MH17D open	$ 5.30
MH17AM sealed	12.10	MH17DM sealed	11.60

CURRENT ACTUATED

Contacts	Type	Coil Resistance Ohms	Factory Adjustment Pull-In MA	Net
DPDT	MH11L open	10000	4.5	$5.05
DPDT	MH11LM sealed	10000	4.5	9.70

MB Series—MINIATURE DC CONTACTOR



MB

Designed for very high current applications. Pure silver contacts and contact-shorting bar rated at 60 amperes. Contact arrangement is 1 Form X (SPST-NO-DM). Contact arms are heavy brass with large, tinned solder terminals.

Dimensions: $1\frac{5}{8}$" x $1\frac{3}{16}$" x $1\frac{3}{8}$" high. Mounted with four #3-48 tapped holes on $\frac{3}{8}$" centers.

Type	Coil Voltage	Coil Resistance	Net
MB3D	6 V DC	13.3 ohms	$4.50
MB3D	12 V DC	62.3 ohms	4.50
MB3D	24 V DC	245 ohms	4.50
MB3D	110 V DC	3670 ohms	4.95

MC Series—CERAMIC INSULATED RELAYS

MC

Inter-contact capacitance, 1.5 mmfd. maximum. Ceramic contact spacers minimize losses at high frequencies. Pure palladium contacts, rated 1 amp., DC types withstand 10G vibration up to 300 cps and 25G shock.

Dimensions: Max. $\frac{25}{32}$" wide x $1\frac{1}{2}$" high x $1\frac{5}{16}$" long.

Contacts	Type	Coil Voltage	Net
SPDT	MC5A	6, 115 V. AC	$3.90
SPDT	MC5D	6, 24 V. DC	3.45

LB Series—PLATE CIRCUIT RELAYS

LB 5

A low-priced relay designed for use in photo-cell control units and similar plate circuit applications. Pull-in readjustable by bending tail spring. Pure silver, SPDT contacts, rated at 5 amp.

Dimensions: $2\frac{5}{8}$" x 1" x $1\frac{3}{8}$" high. Mounted with two $\frac{3}{16}$" diameter holes on $2\frac{1}{4}$" centers.

Contacts	Type	Coil Resistance	Factory Adjustment Pull in MA	Net
SPDT	LB5	2500 ohms	9.0	$2.30
SPDT	LB5	5000 ohms	6.3	2.50
SPDT	LB5	10000 ohms	4.5	2.65

KCP Series—ENCLOSED PLATE CIRCUIT RELAYS

KCP 11

Constructed similar to KRP. Enclosed in polystyrene case with standard octal plug. For plate circuit use. Fine silver contacts rates 2 amps.

Dimensions: $1\frac{13}{32}$" x $1\frac{13}{32}$" x 2" high (above socket).

Contacts	Type	Coil Resistance	Factory Adjustment Pull in MA	Net
SPDT	KCP5	2500 ohms	7.2	$5.80
SPDT	KCP5	5000 ohms	5.0	5.70
SPDT	KCP5	10000 ohms	3.6	6.15
DPDT	KCP11	2500 ohms	10.0	6.00
DPDT	KCP11	5000 ohms	7.2	6.10
DPDT	KCP11	10000 ohms	5.0	6.50

SM Series—MINIATURE RELAYS

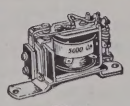
SM

Silver-rhodium SPDT contacts rated $\frac{1}{4}$ amp. Withstands 10G vibration up to 55 cps. Hermetically sealed in deep drawn steel can. Fits standard 7-pin miniature tube socket.

Dimensions: Height, $1\frac{11}{16}$" (above socket); diameter, $\frac{3}{4}$".

Nom. Voltage	SM5DS Pull In V	Net	SM5LS Coil Resistance Ohms	Pull In MA	Net
6.0	4.5	$4.75	5000	3.8	$5.10
24.0	18.0	4.75	10000	2.7	5.85

FR Series—PHOTO FLASH RELAYS



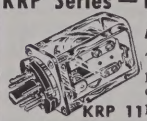
FR-5

Contacts designed to carry a high surge current without sticking, burning or pitting. Repetitive accuracy comparable to a precision built camera shutter. For intermittent duty.

Dimensions: $2\frac{31}{32}$" x $1\frac{7}{16}$" x $1\frac{5}{8}$" high. Mounted with two $\frac{5}{32}$" diameter holes on $2\frac{5}{8}$" centers. When ordering specify voltage.

Type	Contacts	Coil Voltage	Net
FR5A	SPDT	6 Volts, 50-60 cy, AC	$3.60
FR5D	SPDT	2 Volts, DC	3.60

KRP Series—ENCLOSED VOLTAGE ACTUATED RELAYS



KRP 11

The KRP relay is enclosed in a clear polystyrene, dust and weatherproof cover supplied with a standard octal plug. Contacts rated 5 amperes.

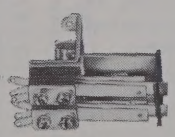
Dimensions: $1\frac{13}{32}$" x $1\frac{13}{32}$" x 2" high (above socket).

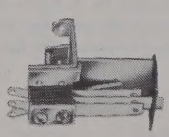
Contacts	60 CYCLE AC RELAYS 1-12-24-115 V AC Type	Net	DC RELAYS 6-12-24 V DC Type	Net	110 V DC Net
SPDT	KRP5A	$5.20	KRP5D	$5.15	$5.75
DPDT	KRP11A	5.75	KRP11D	5.70	6.30

GUARDIAN SERIES 200 RELAY

With interchangeable coil and contact switch assembly.

	SINGLE POLE DOUBLE THROW	DOUBLE POLE DOUBLE THROW	Net Ea.
COILS			
200- 6A	6 volts A.C.	60 cycles	$1.59
200- 6A	6 volts A.C.	25 cycles	1.85
200- 12A	12 volts A.C.	60 cycles	1.59
200- 12A	12 volts A.C.	25 cycles	1.85
200- 24A	24 volts A.C.	60 cycles	1.59
200- 24A	24 volts A.C.	25 cycles	1.85
200-115A	115 volts A.C.	60 cycles	2.00
200-115A	115 volts A.C.	25 cycles	2.32
200- 6D	6 volts D.C.		1.59
200- 12D	12 volts D.C.		1.59
200- 24D	24 volts D.C.		1.59
200- 32D	32 volts D.C.		1.59
200-110D	110 volts D.C.		2.00
200-5000D	Plate Circuit Coil		2.09
CONTACT ASSEMBLIES			
200-1	Single pole double throw 8 amps		1.32
200-2	Double pole double throw 8 amps.		1.79
200-3	Contact switch parts		1.32
200-4	Double pole double throw 12.5 amps		2.09
200-5	Four pole double throw 8 amps		3.23
200-M1	Single pole double throw 8 amps		1.29
200-M2	Double pole double throw 8 amps		1.59
200-M3	Contact switch parts, Midget		1.32





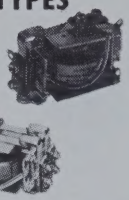
GUARDIAN SERIES 200 RELAY

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

ADVANCE RELAYS

POWER CONTROL TYPES



PC SERIES (1, 2, 3 & 4 pole).

Dimensions:
H. 1 1/16" W. 1 5/8" L. 2 5/8" – 1 & 2 pole
H. 1 9/16" W. 2 3/4" L. 3 1/16" – 3 & 4 pole

Mounting Data:
2 tapped holes 6-32 NC-2; 2" centers.

These are compact and positive-acting relays for either AC or DC—whichever you specify. The industrial control applications are innumerable for these very popular ADVANCE types. They are used in air conditioning and lighting systems, small motor starting, transformers, garage door openers—wherever dependable circuit switching is necessary.

The large contact surfaces are kept clean by good wiping action. Rugged components give long life to these relays. Solder-lug terminals are provided. High gram pressure is maintained by a heavy spring tension, permitting operation in any position.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
PC/1C/6VA	1.6 ohms	6VAC	SPDT 15 amps	$3.01
PC/1C/115VA	450 ohms	115VAC	SPDT 15 amps	3.01
PC/1C/6VD	16 ohms	6VDC	SPDT 15 amps	3.01
PC/1C/24VD	250 ohms	24-28VDC	SPDT 15 amps	3.01
PC/2C/6VA	1.6 ohms	6VAC	DPDT 15 amps	4.31
PC/2C/24VA	25 ohms	24VAC	DPDT 15 amps	4.31
PC/2C/115VA	450 ohms	115VAC	DPDT 15 amps	4.31
PC/2C/6VD	16 ohms	6VDC	DPDT 15 amps	4.31
PC/2C/12VD	63 ohms	12VDC	DPDT 15 amps	4.31
PC/2C/24VD	250 ohms	24-28VDC	DPDT 15 amps	4.31
PC/3C/6VA	1.6 ohms	6VAC	3PDT 15 amps	6.63
PC/3C/115VA	450 ohms	115VAC	3PDT 15 amps	6.63
PC/3C/6VD	16 ohms	6VDC	3PDT 15 amps	6.63
PC/3C/24VD	250 ohms	24-28VDC	3PDT 15 amps	6.63
PC/4C/115VA	450 ohms	115VAC	4PDT 15 amps	7.74
PC/4C/24VD	250 ohms	24-28VDC	4PDT 15 amps	7.74

PG SERIES (general purpose).

Dimensions:
H. 1 7/8" W. 1 1/2" L. 1 5/8"

Mounting Data:
4 tapped holes 6-32 NC-2; 1/2" x 1 5/16" centers.

These units have universal general-purpose applications. Their efficient coil structure provides the high magnetic strength necessary for high-pressure contacts on short blades, and excellent wiping action. You'll find these to be excellent double-pole relays for general industrial power-control circuits. Uses are extended by the small size—allowing practical hermetic sealing in small enclosures.

Vibration and shock are withstood easily by these relays due to the special armature and frame design.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
PG/2C/6VA	1.4 ohms	6VAC	DPDT 15 amps	$4.98
PG/2C/115VA	400 ohms	115VAC	DPDT 15 amps	4.98
PG/2C/24VD	160 ohms	24-28VDC	DPDT 15 amps	4.98

TELEPHONE TYPE

TQ SERIES (miniature).

Dimensions:
H. 1 3/8" W. 3/4" L. 1 1/32"

Mounting Data:
4 tapped holes; 3-48 NC-2; 3/8" centers

Here is a DC relay occupying only .94 cu. in. of space. Despite this small size, it carries 3 amp. loads in the 4PDT combination, and is available up to 6PDT.

Mechanical failure is minimized as the relay is secured mechanically throughout. Spacers between contact blades are silicone glass, and fastening screws are encased in "KEL-F" tubing. Bumpers are ceramic. Relay insulation is inorganic, and will not gas or bubble—hence no contact contamination from these sources. Single air-gap construction in the magnetic assembly further increases efficiency of the TQ.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
TQ/2C/24VD	600 ohms	24-28VDC	DPDT 3 amps	$3.17
TQ/4C/24VD	300 ohms	24-28VDC	4PDT 3 amps	3.17

*Contacts: rated at 115VAC or 26.5VDC resistive loads.

POWER TRANSFER TYPES

PH SERIES (keying relays).

Dimensions:
H. 1 5/8" W. 2 1/4" L. 3 1/4"

Mounting Data:
2 holes .169 dia. clearance for 8-32 NC-2 screws. 1 1/2" centers.

These single-pole, heavy-duty, power-transfer and keying relays have extremely large contacts for high-current make and break. Wherever standard industrial control contact ratings are insufficient, or where the need for switching inductive loads exists, the PH Series is ideally suited. This unit is used as a keying relay in CW radio transmission.

The large binding-post terminals, and rugged bakelite base upon which these relays are mounted, make the connections simple and installation easy.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
PH/1A/6VD	16 ohms	6VDC	SPST-NO 20 amps	$4.81
PH/1A/115VA	450 ohms	115VAC	SPST-NO 20 amps	4.81
PH/1C/115VA	450 ohms	115VAC	SPDT 20 amps	5.12
PH/1C/6VD	16 ohms	6VDC	SPDT 20 amps	5.12

PV SERIES (very heavy-duty).

Dimensions:
H. 1 5/8" W. 2 1/4" L. 3 1/4"

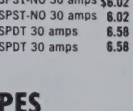
Mounting Data:
2 holes .169 dia. clearance for 8-32 NC-2 screws. 1 7/8" centers.

This Series of very heavy-duty power-transfer relays is excellent for motor starting, lighting circuits and numerous applications where heavy double-make contacts are needed. The relay is assembled upon a thick bakelite base, and is provided with a sub-base for mounting insulation. It is fitted with extra large binding-post terminals to adequately carry the heavy current load for which the unit is designed.

The "T" blade is equipped with two 5/16" silver-cadmium oxide contacts, with ample contact gap.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
PV/1A/6VD	16 ohms	6VDC	SPST-NO 30 amps	$6.02
PV/1A/115VA	450 ohms	115VAC	SPST-NO 30 amps	8.02
PV/1C/6VD	16 ohms	6VDC	SPDT 30 amps	6.58
PV/1C/115VA	450 ohms	115VAC	SPDT 30 amps	6.58

LATCHING TYPES



LE & LH SERIES

(electrical & manual reset).

Dimensions:
H. 2 3/8" W. 2 1/2" L. 3 5/8"

Mounting Data:
2 holes .152 dia.; clearance for 6-32 NC-2 screws; 2" centers.

The LE and LH Series relays are employed in industrial and power control applications where it is desirable to eliminate continuous use of current consumption by the duty coil.

When the actuating coil is momentarily energized, the armature is mechanically locked in the closed position. In the LE Series, return to the deenergized position is accomplished by use of a reset coil. In the LH Series, a bakelite-tipped lever is provided for resetting the contacts manually.

The latching mechanism in these relays is positive, and assures consistent performance. The units are assembled on a heavy bakelite base. Binding-post terminals are provided for coil connections, and solder-lug terminals for the contact connections.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
LE/2C/6VA	1.0 ohms	6VAC	DPDT 15 amps	$7.41
LE/2C/115VA	250 ohms	115VAC	DPDT 15 amps	7.41
LE/2C/24VD	160 ohms	24-28VDC	DPDT 15 amps	7.41
LH/2C/115VA	250 ohms	115VAC	DPDT 15 amps	5.59

SENSITIVE TYPES

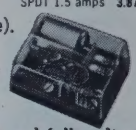
SO SERIES (miniature).

Dimensions:
H. 1 7/32" W. 1 1/8" L. 1 1/4"

Mounting Data:
2 tapped holes; 4-40 NC-2; 1/2" centers

Here for the first time is a sensitive relay small enough for use in the tiniest spaces, and weighing only 1 1/8 ounces. Yet it's adjustable by fine screw contacts to a close differential between pick-up and drop-out. This unique combination of advantages includes high efficiency and a rugged construction, with excellent vibration and shock-resistant characteristics. All contacts are above ground on the Advance "SO," and flexible pigtail connections which might cause adjustments to change are eliminated. A balanced armature on the relay provides extremely sensitive operation.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
SO/1C/4000D	4000 ohms	6.4VDC	SPDT 1.5 amps	$3.58
SO/1C/6500D	6500 ohms	8.1VDC	SPDT 1.5 amps	3.72
SO/1C/10000D	10000 ohms	10.0VDC	SPDT 1.5 amps	3.87



SV SERIES (very sensitive type).

Dimensions:
H. 1 1/2" W. 2" L. 2 9/16" "

Mounting Data:
2 holes .152 dia.

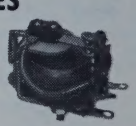
Ultra-sensitive, durable, dust-tight and fully adjustable—SV Series relays are incomparable for use in any DC circuit restricted to a few thousandths of a watt power consumption.

Transparent, molded plastic cover prevents inadvertent operation, and guards against dust or dirt reaching the contacts or other working parts—yet allows immediate visual inspection.

Adjustments are quickly made with the vernier screws which vary relay sensitivity from the 5-milliwatt factory setting. Both the two stationary contacts and the spring tension can be accurately and permanently set—yet easily changed!

Type	Coil Resistance	Coil Current	Contacts*	Net Ea.
SV/1C/1000D	1000 ohms	2.25 MA	SPDT 2 amps	$6.45
SV/1C/1600D	1600 ohms	1.8 MA	SPDT 2 amps	6.45
SV/1C/2200D	2200 ohms	1.5 MA	SPDT 2 amps	6.45
SV/1C/3500D	3500 ohms	1.2 MA	SPDT 2 amps	6.65
SV/1C/5500D	5500 ohms	.95 MA	SPDT 2 amps	6.84
SV/1C/8700D	8700 ohms	.75 MA	SPDT 2 amps	7.05
SV/1C/14000D	14000 ohms	.6 MA	SPDT 2 amps	7.43
SV/1C/20000D	20000 ohms	.5 MA	SPDT 2 amps	8.56
SV/1C/30000D	30000 ohms	.4 MA	SPDT 2 amps	10.57
SV/1C/40000D	40000 ohms	.35 MA	SPDT 2 amps	12.72

MIDGET TYPES



MG SERIES (midget types).

Dimensions:
H. 1 5/8" W. 1 1/4" L. 1 13/16"

Mounting Data:
Relay supplied with single 6-32 NC-2 mtg. stud with hex nut.

These ADVANCE design originals are general-purpose midgets engineered for high efficiency and low price. A tremendous variety of applications for these relays permits countless uses. The small size of these midgets invites their installation in many cramped locations. 2-ampere contact ratings.

These relays employ a beryllium copper armature hinge to insure operation in any position. Adequate wiping action assures positive contact. High quality, electrical grade, linen-base, laminated phenolic insulation is used. The combination of these features guarantees long, trouble-free life.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
MG/1C/6VA	4 ohms	6VAC	SPDT 2 amps	$2.54
MG/1C/115VA	1600 ohms	115VAC	SPDT 2 amps	2.54
MG/1C/6VD	25 ohms	6VDC	SPDT 2 amps	2.54
MG/1C/24VD	250 ohms	24-28VDC	SPDT 2 amps	2.54
MG/2C/6VA	4 ohms	6VAC	DPDT 2 amps	2.73
MG/2C/24VA	63 ohms	24VAC	DPDT 2 amps	2.73
MG/2C/115VA	1600 ohms	115VAC	DPDT 2 amps	2.73
MG/2C/6VD	25 ohms	6VDC	DPDT 2 amps	2.73
MG/2C/12VD	100 ohms	12VDC	DPDT 2 amps	2.73
MG/2C/24VD	250 ohms	24-28VDC	DPDT 2 amps	2.73
MG/3C/6VD	25 ohms	6VDC	3PDT 2 amps	2.73
MG/3C/24VD	250 ohms	24-28VDC	3PDT 2 amps	2.73

*Contacts: rated at 115VAC or 26.5VDC resistive loads.

ADVANCE RELAYS

COAXIAL TYPES

CB SERIES (coaxial type).

Dimensions:
H. 1⅞" W. 3 1/16" L. 3⅞"
Mounting Data:
2 tapped holes 6-32 NC-2; 1 7/16" centers.

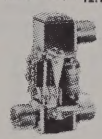
These relays are unsurpassed for meeting the problems of coaxial cable switching. Designed for performance on 52-ohm coaxial lines. Low standing-wave ratios permit usage on frequencies up to 300 megacycles. The units operate equally well in any position.

The internal single-pole double-throw contacts are heavy quarter-inch fine silver, and are supported directly from the cable connectors for extremely low loss at very high frequencies (VHF).

External auxiliary contacts are available up to DPDT for controlling extra circuits.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
CB/1C/6VD	18 ohms	6VDC	SPDT 5 amps	$9.78
CB/1C/24VD	280 ohms	24-28VDC	SPDT 5 amps	9.78
CB/1C/115VA	280 ohms	115VAC	SPDT 5 amps	9.78
CB/1C2C/6VD	18 ohms	6VDC	SPDT (int) DPDT (aux) 5 amps	12.13
CB/1C2C/24VD	280 ohms	24-28VDC	SPDT (int) DPDT (aux) 5 amps	12.13
CB/1C2C/115VA	280 ohms	115VAC	SPDT (int) DPDT (aux) 5 amps	12.13

CE SERIES (small coaxial type).



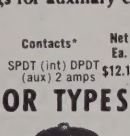
Dimensions:
H. 1 13/16" W. 2 1/16" L. 2 15/16"
Mounting Data:
2 tapped holes 6-32 NC-2; .750" centers.

The CE type is designed for performance on 52-ohm coaxial lines, and may also be used on lines with other impedances. This unit is rated for continuous-duty operation in any position. The relay has internal SPDT contacts, and external contacts up to DPDT are available with 2-ampere ratings for auxiliary circuit switching.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
CE/1C2C/6VD	20 ohms	6VDC	SPDT (int) DPDT (aux) 2 amps	$12.13

SOLENOID CONTACTOR TYPES

ES SERIES



Dimensions:
H. 2½" W. 1 15/16" L. 2¾"
Mounting Data:
2 holes .218 dia.; 1⅞" centers

A compact, ruggedly built, enclosed solenoid-type relay for heavy-duty DC contactor applications. The dust-tight enclosure assures trouble-free operation of the generous-sized solenoid and the ⅜" double-make contacts. Non-pitting silver-cadmium oxide is the contact material used for highly dependable load control.

The unit employs an unusually powerful solenoid with spring loading, to insure positive high-pressure contact and release.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
ES/1A/12VD	28 ohms	12VDC	SPST-NO 50 amps	$7.12
ES/1A/24VD	112 ohms	24-28VDC	SPST-NO 50 amps	7.12

TIME DELAY TYPES

DB & DM SERIES

Dimensions:
H. 1⅝" W. 2⅝" L. 3¾"
Mounting Data:
2 holes .152 dia.; 3 5/16" centers.

The DB Series provides a time delay before break. When energized, it immediately closes the controlled circuit—remaining closed only for the pre-set period, or until the initial circuit is broken. Re-cycling of the DB Series occurs after the initial circuit is broken.

The DM Series provides a delay before make. Once energized, it furnishes an adjustable delayed make for the controlled circuit. When the controlled circuit is completed, it remains closed until the initial circuit is broken. Completion of the controlled circuit starts the cooling of the time-delay device.

Both series utilize bi-metal thermal units which can be adjusted for delays from 5 to 60 seconds. Cooling of the thermal units for proper re-cycling requires 8 to 10 times the delay period.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
DB/2C/115VA	450 ohms	115VAC	DPDT 15 amps	$10.38
DM/2C/115VA	450 ohms	115VAC	DPDT 15 amps	10.38

OVERLOAD TYPES

OE & OF SERIES (electrical reset).

Dimensions:
H. 2⅜" W. 3½" L. 4¼"
Mounting Data:
2 holes 5/32" dia. clearance for 6-32 screws.

The OE Series is adjustable for any desired overload current between 250 and 500 milliamperes, and the OF Series ranges from 500 to 1000 milliamperes. Assemblies are mounted on heavy bakelite bases with binding-post terminals for easy connections.

Set the potentiometer to provide the desired current limit—any overload will actuate the relay, opening the circuit. The circuit remains open until electrically reset.

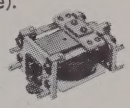
The reset mechanism is a convenient means of releasing the contacts to their normally-closed position.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
OE/2B	...	24-28VDC	DPST-NC 15 amps	$10.33
OF/2B		24-28VDC	DPST-NC 15 amps	10.33

A wide assortment of relays available from stock for immediate delivery.

ANTENNA TYPES

AH SERIES (small antenna type).



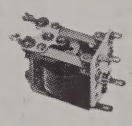
Dimensions:
H. 1 7/16" W. 1⅝" L. 2¾"
Mounting Data:
2 tapped holes; 6-32 NC-2; 2" centers.

A changeover relay designed specifically for RF operation. This unit switches the antenna circuit from "receive" to "transmit," or vice-versa, in fixed-station operation . . . aircraft, marine, mobile and portable radio communications equipment. The small size of this relay makes it ideal for use in compact sets where the load does not exceed ½ KW.

For most reliable transfer of antenna power, contacts are one-quarter inch fine silver, and movable blades are reinforced at both top and bottom with spring phosphor bronze to provide high contact pressure. Low-loss handling of RF energy is assured by the Steatite insulation

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
AH/2C/6VA	1.6 ohms	6VAC	DPDT 10 amps	$6.01
AH/2C/115VA	450 ohms	115VAC	DPDT 10 amps	6.01
AH/2C/6VD	16 ohms	6VDC	DPDT 10 amps	6.01
AH/2C1C/6VA	1.6 ohms	6VAC	DPDT (int) SPDT (aux) 10 amps	7.29
AH/2C1C/115VA	450 ohms	115VAC	DPDT (int) SPDT (aux) 10 amps	7.29

AM SERIES (midget antenna type).



Dimensions:
H. 1 9/16" W. 15/16" L. 1 15/16"
Mounting Data:
Relay supplied with single 6-32 NC-2 mtg. stud. with hex nut.

AM Series relays are well designed and excellently constructed for consistent performance. Silicone glass insulation is used for low RF loss. Proper line spacing for 300-ohm impedance is maintained by solder-lug terminals extending from the armature blades and front assembly. Mounted with a single stud, these efficient, yet inexpensive midget antenna units fill the need for 300-ohm circuit switching in mobile, marine, aircraft, television, communication and fixed-station service.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
AM/2C/6VA	4 ohms	6VAC	DPDT 2 amps	$3.21
AM/2C/115VA	1600 ohms	115VAC	DPDT 2 amps	3.21
AM/2C/6VD	25 ohms	6VDC	DPDT 2 amps	3.21

AT SERIES (antenna type).

Dimensions:
H. 1 11/16" W. 2 3/16" L. 3 9/16"
Mounting Data:
4 holes .157 dia.; clearance for 6-32 screws.

For heavy-duty RF transmitter antenna changeover applications, these relays are unequaled. Primarily designed for fixed-station usage, with a conservative 1-kilowatt RF rating, these same relays have ample contact size and gap width to also be used on industrial loads for switching difficult circuits.

Type	Coil Resistance	Coil Voltage	Contacts*	Net Ea.
AT 2C 115VA	450 ohms	115VAC	DPDT 10 amps	$7.50

AMPERITE
THERMOSTATIC DELAY RELAYS

TECHNICAL CHARACTERISTICS: Circuits: SPST only—Normally open or normally closed. Heater Wattage: 2 W prox.—Heaters can be operated continuously. Standard Contact Rating: 115V.-3A A.C. (or 220V-0.5A A.C.); Maximum voltage between contacts and heater—1500V. D.C. Miniature Contact Rating: 115V-2A A.C., other specifications same as standard. Ambient Temperatures: Relays are compensated for temperatures of —55° to +70° C. Tolerances given are for 20° C. Life: With 115V-1A A.C., non-inductive, at least 500,000 operations.

BASE WIRING: Standard Radio Octal: Prongs 2-3 heater; Prongs 5-7 contacts. 9-Pin Miniature: Prongs 1-6 heater; Prongs 3-4. 1 contact; Prongs 8-9-2nd contact.
MINIATURE TYPES: Designated by letter T. (e.g.6N05T) is available in all delays shown above bold dotted line. Delays of 2 to 90 seconds are available in both standard radio octal and 9-Pin miniature. Prices of both standard and miniature type.

NORMALLY OPEN CONTACTS

Delay-Seconds	Tolerance Seconds	HEATER VOLTAGES 2.5 V.	5.0 V.	6.3 V.	12 V.	26 V. (22-30)	115 V.
2	± 1	2N02	5N02	6N02	12N02	26N02	115N02
3	± 1	2N03	5N03	6N03	12N03	26N03	115N03
5	± 2	2N05	5N05	6N05	12N05	26N05	115N05
10	± 3	2N010	5N010	6N010	12N010	26N010	115N010
15	± 3	2N015	5N015	6N015	12N015	26N015	115N015
20	± 4	2N020	5N020	6N020	12N020	26N020	115N020
30	± 8	2N030	5N030	6N030	12N030	26N030	115N030
45	± 10	2N045	5N045	6N045	12N045	26N045	115N045
60	± 12	2N060	5N060	6N060	12N060	26N060	115N060
75	± 15	2N075	5N075	6N075	12N075	26N075	115N075
90	± 15	2N090	5N090	6N090	12N090	26N090	115N090
120	± 30	2N0120	5N0120	6N0120	12N0120	26N0120	115N0120

All Types ..... **$2.35 Net Each**

NORMALLY CLOSED CONTACTS

Delay-Seconds	Tolerance Seconds	HEATER VOLTAGES 2.5 V.	5.0 V.	6.3 V.	12 V.	26 V. (22-30)	115 V.
2	± 1	2C2	5C2	6C2	12C2	26C2	115C2
3	± 1	2C2	5C2	6C2	12C2	26C2	115C2
5	± 2	2C5	5C5	6C5	12C5	26C5	115C5
10	± 3	2C10	5C10	6C10	12C10	26C10	115C10
15	± 3	2C15	5C15	6C15	12C15	26C15	115C15
20	± 4	2C20	5C20	6C20	12C20	26C20	115C20
30	± 8	2C30	5C30	6C30	12C30	26C30	115C30
45	± 10	2C45	5C45	6C45	12C45	26C45	115C45
60	± 12	2C60	5C60	6C60	12C60	26C60	115C60
75	± 15	2C75	5C75	6C75	12C75	26C75	115C75
90	± 15	2C90	5C90	6C90	12C90	26C90	115C90
120	± 30	2C120	5C120	6C120	12C120	26C120	115C120

All Types ..... **$2.35 Net Each**

FEDERAL SELENIUM RECTIFIERS

Ideal for replacement and original equipment use. Dependable, long-life, service-free units carefully engineered to provide maximum performance. Type 1159 is an ultra-compact tubular rectifier encased in paper tube with 1½" leads.

Standard Radio & TV Replacement Line

Catalog No.	Max. D-C MA	Max. RMS Volts	Mtg. ('H') Dimension (Max.)	Plate Size	Net Ea.	Net Ea. 25-Lot Bulk-Packed
1159	20	130	—	⅜" Round	$ .91	$ .78
1002A	65	130	¾"	1" Sq.	.88	.75
1003	75	130	¾"	1" Sq.	1.09	.93
1004A	100	130	¾"	1¾" x 1 3/32"	1.20	1.03
1101A	100	130	1 ⅛"	1" Sq.	1.12	.95
1005A	150	130	1"	1¾" x 1 3/32"	1.22	1.13
1006A	200	130	1"	1 13/32" Sq.	1.85	1.58
1028A (1010)	250	130	1 ¼"	1 13/32" Sq.	1.85	1.58
1090A	300	130	2 7/32"	1 13/32" Sq.	1.94	1.65
1023 (1206)	350	130	2 7/32"	1 ¾" Sq.	2.41	2.05
1130 (1056)	400	130	1 ¼"	2" Sq.	2.50	2.13
1179 (1021)	500	130	2 7/32"	2" Sq.	2.59	2.20
1022	450	160	2 13/16"	2" Sq.	2.91	2.48
1016	300	25	¾"	1¾" x 1 3/32"	1.41	1.20
1017	600	25	¾"	1 13/32" Sq.	1.85	1.58
1013	700	18	¼"	1 13/32" Sq.	.82	.70
1018	1600	18	⅜"	4 ¼" Lg. (Mtg. Plt.)	2.28	1.93
1001	75	20	⅜"	1" Sq.	.47	.40

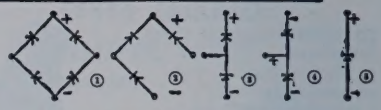
Universal Replacement Line

1263A	65	130	21/32"	1¼" sq.	$ .79	$ .68
1236A	300	130	1 ⅜"	1 ⅜" sq.	1.94	1.15
1238A	350	130	1 ⅜"	1 ¾" sq.	2.41	2.05
1241A	400	130	1 ¼"	2" sq.	2.50	2.13
1237A	500	130	1 ⅜"	2" sq.	2.59	2.20

500

160

160-C


Internal Circuit Diagrams

CONANT INSTRUMENT RECTIFIERS

SERIES 500 UNITS are for general applications requiring greater output current for meters, relays or other apparatus requiring more than 1 milliampere. Recommended for all such applications at commercial and the lower audio frequencies. Will also operate up to 50,000 c.p.s. in special applications wherein accuracy of readings is not essential.

SERIES 160 and 160-C are for applications requiring good frequency response over the entire commercial and audio range and especially when the meter, relay or other apparatus requires less than 1 milliampere for operation. In some special applications these units may be operated at frequencies up to 15,000,000 c.p.s. with special circuit treatment.

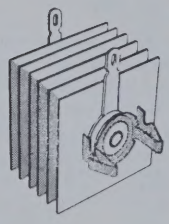
Electrical ratings, continuous per cell, 25° C.
SERIES 500: D.C., reverse volts 2.25; forward milliamperes 60. A.C., r.m.s. volts 5, average (indicated) output milliamperes 30.
SERIES 160 and 160-C: D. C., reverse volts 2.25; forward milliamperes 10. A. C., r.m.s. volts 5, average (indicated) output milliamperes 5.

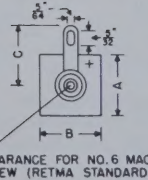
	Type	Body Color	Internal Circuit	Mounting	Number of Terminals	Net Ea.
SERIES 500	M	YELLOW	1	6-32 STUD	4	$2.06
	TH	BROWN	2	6-32 STUD	4	1.82
	HS	BLACK	3	6-32 STUD	3	1.50
	T	RED	4	6-32 STUD	3	1.50
	H	GREEN	5	6-32 STUD	2	1.18
SERIES 160	B	YELLOW	1	#2 SCREW	4	2.06
	BTH	BROWN	2	#2 SCREW	4	1.82
	BHS	BLACK	3	#2 SCREW	3	1.50
	BT	RED	4	#2 SCREW	3	1.50
	BH	GREEN	5	#2 SCREW	2	1.18
SERIES 160-C	B-C	YELLOW	1	FUSE CLIP	4	2.06
	BTH-C	BROWN	2	FUSE CLIP	4	1.82
	BHS-C	BLACK	3	FUSE CLIP	3	1.50
	BT-C	RED	4	FUSE CLIP	3	1.50
	BH-C	GREEN	5	FUSE CLIP	2	1.18

Really RR Reliable

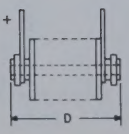
RADIO RECEPTOR SELENIUM RECTIFIERS

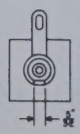
Premium quality at low cost. A complete line of miniature rectifiers for replacement or original equipment use. Dependable units designed to provide long trouble-free service.





CLEARANCE FOR NO. 6 MACHINE SCREW (RETMA STANDARD).





CURRENT RATING	CODE NO.	MAX. INPUT VOLTS A.C.	MIN. SERIES RESISTOR (OHMS)	MAX. PEAK INVERSE VOLTAGE	A (INCHES)	B (INCHES)	C + 0—1/32 (INCHES)	D ± 1/32 (INCHES)	Net Ea.	Net Ea. Per 100 Bulk Packed
STANDARD REPLACEMENT LINE										
65 MA	8J1	130	33	380	11/16	11/16	13/32	½	$ .79	$ .61
75 MA	5M4	130	22	380	1	1	15/16	11/16	1.03	.87
100 MA	5M1	130	22	380	1	1	15/16	⅞	1.12	.90
150 MA	5P1	130	15	380	1 3/16	1 3/16	15/16	⅞	1.29	1.08
200 MA	5R1	130	5	380	1¼	1¼	1 3/16	⅞	1.62	1.41
250 MA	5Q1	130	5	380	1½	1½	1 3/16	1⅛	1.73	1.51
300 MA	6Q4*	130	5	380	1½	1½	1 3/16	1¾	1.82	1.50
350 MA	6QS2	156	5	456	1½	2	1 3/16	1⅜	2.32	2.01
400 MA	6S4	156	5	456	2	2	1⅜	1⅛	2.45	2.09
500 MA	6S2	156	5	456	2	2	1⅜	1⅜	2.59	2.25
SPECIAL REPLACEMENT LINE										
100 MA	1M1	25	None	75	1	1	15/16	⅜	$ .44	$ .30
30 MA	8Y1	130	47	380	½	½	13/32	½	.59	.48
25 MA	16Y1	260	47	760	½	½	13/32	⅞	1.23	1.08
75 MA	6M1	156	22	456	1	1	15/16	⅞	1.06	.90
100 MA	6M2	156	22	456	1	1	15/16	1⅛	1.15	.97
150 MA	6P2	156	15	456	1 3/16	1 3/16	15/16	1 3/16	1.35	1.14
250 MA	6R4*	130	5	380	1½	1¼	1 3/16	1¾	1.73	1.51
250 MA	6Q1	156	5	456	1½	1½	1 3/16	1⅛	1.76	1.56
250 MA	6Q2	156	5	456	1½	1½	1 3/16	1⅜	1.76	1.56
350 MA	5QS1	130	5	380	1½	2	1 3/16	1⅛	2.26	1.92
350 MA	6QS4*	156	5	456	1½	2	1 3/16	1¾	2.32	2.01
350 MA	6SQ1	156	5	456	1¾	1½	1 3/16	1⅜	2.32	2.01
400 MA	5S2	130	5	380	2	2	1⅝	1⅛	2.38	2.01
500 MA	5S3	130	5	380	2	2	1⅝	1⅜	2.53	2.18

*Stud mounted — 8-32 x ¼" long.

Current ratings are for a maximum plate temperature of 75° C when the rectifiers are new, in a maximum ambient temperature of 45° C. Recommended plate temperature for new rectifiers is 70° C.

Output current ratings are based on R. M. S. rectifier current not in excess of 2.5 times rated output current.

RADIO RECEPTOR POWER RECTIFIERS

Rectifier Circuits, Connections And Dimensions

Really RR Reliable

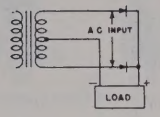
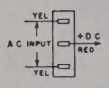


Figure 1
Center Tap



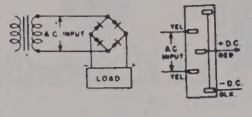
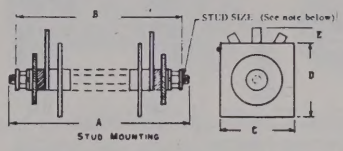
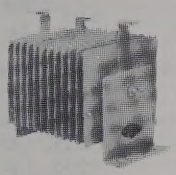
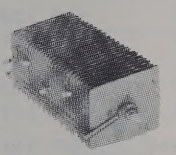


Figure 2
Bridge Circuit



NOTE: #10/32 for all stacks with code numbers starting Q, S, WP, WQ, WS. #5/16-18 for all others.





Simple, rugged construction provides dependable D.C. power for a variety of purposes.

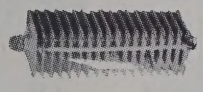
These rectifiers may be used at lower inputs to secure lower D.C. voltages as required.

The values in the table are those for the conditions of a resistive or inductive load, an ambient temperature of 35°C. (95°F.), and normal convection cooling with the rectifiers installed with the plates in a vertical position.

APPROX. DC VOLTS AT MAX. INPUT NEW	APPROX. DC VOLTS AT MAX. INPUT AGED	MAX. DC AMPS	MAX. AC VOLTS INPUT	CIRCUIT	RRco. CODE NO:	RECTIFIER DIMENSIONS IN INCHES See Figure 3 A	B	C	D	E	RECTIFIER PRICE	MOUNTING BRACKETS PRICE EACH
		.9			Q1C1S1G	1⅝*	1⅛	1½	1½	½	1.45	.17
		1.4			S1C1S1G	1⅝*	1⅛	2	2	½	2.10	.22
10	9.5	3.2	26†	C.T.	U1C1S1G	3⅛	1 13/16	3	3	⅝	3.28	.22
		6.0		Fig. 1	W1C1S1G	3⅛	1 13/16	4	4	⅝	4.41	.28
		10.0			H1C1S1G	3¼	2	6	5	1⅜	6.11	.44
		15.0			L1C1S1G	3¼	2	7¼	6	2	8.07	.44
		.9			Q1B1S1G	1⅞*	1½	1½	1½	½	2.40	.17
		1.4			S1B1S1G	2⅛	1 1/16	2	2	½	4.16	.22
20	19	3.2	26	Br.	U1B1S1G	3 13/16	2⅛	3	3	⅝	6.34	.22
		6.0		Fig. 2	W1B1S1G	3 13/16	2⅛	4	4	⅝	8.82	.28
		10.0			H1B1S1G	4⅜	2 15/16	6	5	2⅛	12.38	.44
		15.0			L1B1S1G	4⅜	2 13/16	7¼	6	3	16.11	.44
		.9			Q2B1S1G	3	2¼	1½	1½	½	5.64	.17
		1.4			S2B1S1G	3⅝	2⅝	2	2	½	7.60	.22
40	38	3.2	52	Br.	U2B1S1G	5	3¾	3	3	⅝	11.25	.22
		6.0		Fig. 2	W2B1S1G	5	3¾	4	4	⅝	16.08	.28
		10.0			H2B1S1G	5⅞	4⅝	6	5	2⅛	22.71	.44
		15.0			L2B1S1G	5 15/16	4 1/16	7¼	6	3	29.75	.44
		.45			WP5B1S1G	6⅝	5 13/16	1 3/16	1 3/16	⅜	10.41	.17
		.9			WQ5B1S1G	6⅝	5 13/16	1½	1½	½	12.68	.17
		1.4			WS5B1S1G	7⅜	6⅝	2	2	½	18.08	.22
100	95	3.2	130	Br.	WU5B1S1G	11	9¾	3	3	⅝	24.87	.22
		6.0		Fig. 2	WW5B1S1G	11	9¾	4	4	⅝	37.82	.28
		10.0			WH5B1S1G	13 7/16	12 3/16	6	5	2⅛	53.41	.44
		15.0			WL5B1S1G	13⅝	12⅜	7¼	6	3	70.27	.44
		.45			WP6B1S1G	7 5/16	6 13/16	1 3/16	1 3/16	⅜	11.99	.17
		.9			WQ6B1S1G	7 5/16	6 13/16	1½	1½	½	14.65	.17
		1.4			WS6B1S1G	8½	7¾	2	2	½	21.32	.22
120	114	3.2	156	Br.	WU6B1S1G	12¼	11½	3	3	⅝	29.03	.22
		6.0		Fig. 2	WW6B1S1G	12¾	11½	4	4	⅝	44.46	.28
		10.0			WH6B1S1G	15 1/16	14 7/16	6	5	2⅛	63.15	.44
		15.0			WL6B1S1G	15 15/16	14 1/16	7¼	6	3	83.13	.44

*Screw mounted—10/32 stud extends to one side only. †Across outer legs of center tap connection.

55



CIRCUIT DIAGRAM

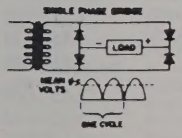


FIG A

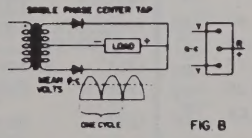


FIG B

APPLICATION DATA

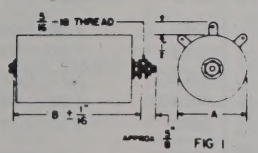


FIG 1

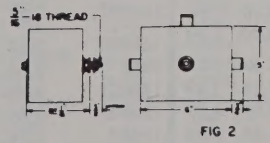


FIG 2

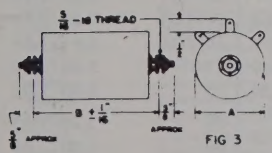


FIG 3

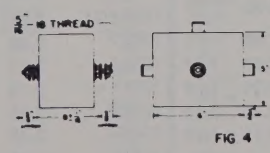


FIG 4

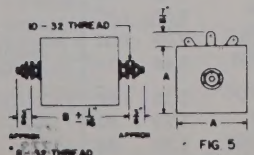


FIG 5

FEDERAL "PACKAGED POWER"

Selenium Rectifier Stacks

Low cost, efficient, dependable, long life power conversion from A.C. to D.C. No moving parts. Ratings are for 35° ambient; resistive or inductive loads; all designs shown are for single phase full wave rectification.

Max. D.C. Output (Approximate)‡ Volts	Amps.	Max. A.C. Input Volts	Circuit and Stack Conn. Diagram	Rectifier Stack Dimensions A	B ± 1/16"	Fig.	Catalog Number	Net User's Price
	3.0	13		3⅜"	1 1/16"	1	2100	$ 4.62
10	6.0	13	'B'	4⅜"	1¾"	1	2101	6.18
	12.0	13		5" x 6"	1¾"	2	2102	7.70
	3.0	26		3⅜"	2 1/16"	1	2103	8.40
20	6.0	26	'A'	4⅜"	2 11/16"	1	2104	11.00
	12.0	26		5" x 6"	2¾"	2	2105	14.10
	3.0	52		3⅜"	3 1/16"	3	2026	15.28
40	6.0	52	'A'	4⅜"	5"	3	2107	20.15
	12.0	52		5" x 6"	5¼"	4	2108	26.20
	3.0	78		3⅜"	4½"	3	2118	20.43
60	6.0	78	'A'	4⅜"	6¾"	3	2033	28.53
	12.0	78		5" x 6"	7 3/16"	4	2085	37.82
	3.0	104		3⅜"	5½"	3	2109	25.63
80	6.0	104	'A'	4⅜"	8 1/16"	3	2110	35.75
	12.0	104		5" x 6"	9 5/16"	4	2111	49.23
	1.0	130		2" Sq.	5⅜"	5	2112	19.38
100	2.4	130	'A'	3⅜"	6⅝"	3	2113	31.02
	6.0	130		4⅜"	10 5/16"	3	2114	41.80
	0.3	156		1 5/32" x 1 13/64"	4¾"	5*	2115	13.33
	0.6	156		1 17/32" Sq.	4⅞"	5	2036	15.68
120	1.0	156	'A'	2" Sq.	6 7/16"	5	2116	22.68
	2.4	156		3⅜"	7⅝"	3	2038	36.23
	6.0	156		4⅜"	12 5/16"	3	2117	49.38

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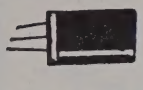
Sun Radio & ELECTRONICS CO. INC.

R.C.A. RECEIVING TUBES

R.C.A. Radiotrons—The Greatest Name In Receiving Tubes. Fresh stocks at all times. As new types are released, we stock them. All tubes guaranteed 12 full months. This does not apply to broken or burned-out tubes.

RCA TYPE	LIST PRICE	Net Ea.
OZ4	$1.40	$ .71
OZ4G	1.70	.85
1A3	2.50	1.27
1A5GT	2.10	1.06
1A7GT	2.65	1.34
1AC5	3.50	1.78
1AD5	3.50	1.78
1B3GT	2.50	1.26
1C5GT	2.60	1.33
1D8GT	4.55	2.32
1E8	3.85	1.96
1H5GT	2.15	1.09
1L4	2.15	1.09
1L6	2.90	1.47
1LA6	2.75	1.40
1LB4	2.95	1.50
1LC5	2.75	1.40
1LC6	2.75	1.40
1LD5	2.75	1.40
1LE3	2.75	1.40
1LG5	2.75	1.40
1LH4	2.75	1.40
1LN5	2.75	1.40
1N5GT	2.60	1.33
1Q5GT	3.05	1.54
1R5	2.25	1.15
1S4	2.55	1.29
1S5	1.90	.95
1T4	2.15	1.08
1T6	3.50	1.78
1U4	2.10	1.06
1U5	1.85	.94
1V	2.55	1.30
1V2	1.55	.78
1X2A	2.50	1.26
1X2B	2.50	1.26
2A3	4.55	2.32
2AF4A	3.45	1.75
3A2	2.90	1.47
3A3	2.90	1.47
3AL5	1.60	.81
3AU6	1.75	.88
3AV6	1.55	.77
3B2	4.45	2.28
3BC5	2.00	1.02
3BY6	2.05	1.04
3BZ6	2.00	1.02
3CB6	2.00	1.02
3CF6	2.20	1.11
3LF4	3.10	1.58
3Q4	2.20	1.11
3Q5GT	2.80	1.41
3S4	2.15	1.08
3V4	2.15	1.08
4BQ7A	3.25	1.67
4BZ7	3.45	1.75
5AM8	2.75	1.40
5AN8	3.00	1.53
5AQ5	1.90	.95
5AS4	1.75	.90
5AS8	2.85	1.46
5AT8	2.80	1.41
5AZ4	1.55	.78
5J6	2.35	1.20
5T4	5.00	2.56
5U4G	1.70	.85
5U4GB	1.75	.90
5U8	2.90	1.48
5V4G	2.55	1.30
5W4GT	1.75	.90
5X4G	2.05	1.04
5X8	2.80	1.41
5Y3G	1.45	.73
5Y3GT	1.25	.62
5Y4G	1.85	.94
5Y4GT	1.85	.94
5Z3	2.00	1.02
5Z4	3.60	1.83
6A7	3.05	1.54
6A8	2.90	1.47
6A8G	2.75	1.40
6A8GT	2.90	1.48
6AB4	1.70	.85
6AB5/6N5	2.85	1.47
6AB7	3.55	1.81
6AC5GT	3.10	1.58
6AC7	3.10	1.58
6AD7G	4.25	2.16
6AF4A	3.40	1.74
6AF6G	2.85	1.47
6AG5	2.05	1.04
6AG7	3.50	1.78
6AH4GT	2.45	1.23
6AH6	3.45	1.75
6AK5	4.20	2.16
6AK6	2.30	1.18
6AL5	1.55	.77
6AL7GT	3.85	1.97
6AM8	2.75	1.39
6AN8	2.95	1.51
6AQ5	1.85	.92
6AQ6	1.70	.85
6AQ7GT	3.05	1.55
6AR5	2.05	1.04
6AS5	2.00	1.01
6AS8	3.00	1.54
6AT6	1.50	.76
6AT8	2.75	1.40
6AU4GT	2.90	1.47
6AU4GTA	2.90	1.47
6AU5GT	3.20	1.62
6AU6	1.70	.85
6AV5GT	3.35	1.69
6AV6	1.50	.76
6AW8	3.20	1.62
6AX4GT	2.35	1.20
6AX5GT	2.05	1.04
6AZ8	3.35	1.69
6B4G	4.55	2.31
6B8	3.50	1.78
6BA6	1.80	.91
6BA7	2.60	1.33
6BC4	4.10	2.10
6BC5	2.00	1.01
6BC7	3.20	1.64
6BD4A	**14.25**	**9.75**
6BD6	1.80	.91
6BE6	1.90	.95
6BF5	2.25	1.13
6BF6	1.60	.81
6BG6G	5.20	2.66
6BH6	2.30	1.18
6BJ6	2.05	1.05
6BK4	6.15	3.14
6BK5	2.60	1.32
6BK7A	2.90	1.47
6BL4	5.25	2.68
6BL7GT	3.25	1.67
6BQ6GTB /6CU6	3.50	1.79
6BQ7A	3.25	1.65
6BY5GA	3.30	1.68
6BY6	2.00	1.02
6BZ6	2.00	1.01
6BZ7	3.40	1.74
6C4	1.50	.76
6C5	2.20	1.11
6C5GT	2.15	1.08
6C6	2.80	1.41
6C8G	3.85	1.97
6CB5	7.60	3.88
6CB6	2.00	1.01
6CD6G	4.70	2.40
6CF6	2.15	1.09
6CG7	2.20	1.11
6CL6	3.10	1.58
6CM7	2.40	1.22
6CS6	1.85	.94
6D6	2.80	1.41
6DC6	2.30	1.18
6DE6	2.05	1.04
6E5	2.15	1.09
6F5	2.40	1.22
6F5GT	1.90	.95
6F6	2.65	1.36
6F6G	2.00	1.02
6F6GT	2.00	.73
6F7	4.25	1.54
6F8G	3.85	1.41
6G6G	2.85	1.04
6H6	2.00	.73
6J5	1.90	.68
6J5GT	1.85	.67
6J6	2.35	.84
6J7	2.50	.90
6J7GT	2.80	1.01
6J8G	3.85	1.41
6K6GT	1.80	.65
6K7	2.30	.83
6K7GT	2.55	.92
6K8	3.35	1.22
6L6	4.70	1.71
6L6G	3.40	1.24
6L7	3.15	1.15
6N7	3.25	1.19
6N7GT	3.10	1.13
6Q7	2.45	.88
6Q7GT	2.10	.76
6R7	2.80	1.01
6S4A	1.75	.64
6S7	3.25	1.18
6S8GT	2.75	1.00
6SA7	2.30	.84
6SA7GT	2.30	.84
6SB7Y	3.45	1.25
6SC7	2.50	.90
6SF5	2.05	.75
6SF5GT	2.00	.72
6SF7	2.75	.99
6SG7	2.35	.86
6SH7	2.75	.99
6SJ7	2.15	.78
6SJ7GT	1.65	.60
6SK7	2.15	.78
6SK7GT	2.15	.78
6SL7GT	2.60	.95
6SN7GTB	2.15	.78
6SQ7	1.90	.69
6SQ7GT	1.90	.69
6SR7	2.05	.75
6SS7	2.75	.99
6ST7	2.80	1.01
6SZ7	2.50	.90
6T8	2.90	1.05
6U5	2.05	.75
6U8	2.85	1.04
6V3A	3.95	1.43
6V6	3.65	1.32
6V6GT	1.85	.66
6W4GT	1.75	.62
6W6GT	2.25	.82
6X4	1.40	.50
6X5GT	1.40	.51
6X8	2.75	1.00
6Y6G	2.60	.95
7A4	2.05	.74
7A5	2.60	.94
7A6	2.15	.78
7A7	2.20	.80
7A8	2.10	.76
7AD7	4.70	1.72
7AF7	2.40	1.22
7AG7	2.55	1.29
7AH7	2.55	1.29
7AU7	2.25	1.13
7B4	2.00	1.02
7B5	1.90	.95
7B6	2.05	1.04
7B7	2.05	1.04
7B8	2.30	1.16
7C5	2.15	1.09
7C6	1.90	.95
7C7	2.15	1.09
7E7	3.35	1.71
7F7	2.55	1.29
7F8	3.45	1.75
7G7	3.00	1.53
7H7	2.25	1.13
7J7	3.65	1.85
7K7	3.20	1.62
7L7	3.00	1.53
7N7	2.35	1.20
7Q7	2.60	1.33
7R7	3.50	1.79
7V7	3.50	1.79
7W7	3.50	1.79
7X7	3.35	1.69
7Y4	1.85	.92
7Z4	1.85	.92
12A8GT	2.90	1.48
12AB5	1.85	.94
12AH7GT	3.05	1.54
12AL5	1.65	.83
12AQ5	1.90	.97
12AT6	1.50	.76
12AT7	2.60	1.33
12AU6	1.70	.85
12AU7	2.20	1.11
12AV6	1.45	.74
12AV7	3.05	1.50
12AW6	2.45	1.23
12AX4GT	2.45	1.23
12AX4GTA	2.45	1.23
12AX7	2.30	1.16
12AZ7	2.60	1.32
12B4A	2.20	1.11
12BA6	1.80	.91
12BA7	2.60	1.33
12BD6	1.80	.91
12BE6	1.90	.95
12BF6	1.60	.81
12BH7	2.55	1.29
12BH7A	2.55	1.29
12BQ6GTB /12CU6	3.55	1.81
12BY7	2.65	1.36
12BY7A	2.65	1.36
12C8	3.95	2.00
12CA5	2.05	1.04
12H6	2.20	1.11
12J5GT	1.85	.94
12J7GT	2.80	1.41
12K7GT	2.55	1.29
12K8	3.30	1.68
12L6GT	1.90	.97
12Q7GT	2.10	1.06
12SA7	2.15	1.08
12SA7GT	2.15	1.08
12SC7	2.50	1.27
12SF5	2.15	1.09
12SF7	2.75	1.39
12SG7	2.35	1.20
12SH7	2.75	1.39
12SJ7	2.15	1.09
12SK7	2.00	1.02
12SK7GT	2.00	1.02
12SL7GT	2.65	1.34
12SN7GT	2.15	1.09
12SQ7	1.75	.90
12SQ7GT	1.75	.90
12SR7	2.15	1.09
12V6GT	1.85	.94
12X4	1.40	.70
12W6GT	2.30	1.16
14A7	2.25	1.13
14AF7	2.50	1.26
14B6	2.25	1.13
14C7	2.50	1.26
14F7	2.55	1.29
14F8	3.45	1.75
14Q7	2.60	1.33
14R7	3.50	1.79
19BG6G	6.00	3.08
19J6	2.50	1.26
19T8	2.90	1.47
19X8	3.10	1.58
24A	2.75	1.39
25A6	3.50	1.79
25BQ6GTB /25CU6	3.65	1.85
25CD6GA	4.70	2.40
25L6	4.30	2.18
25L6GT	1.95	.98
25W4GT	2.10	1.06
25Z5	2.00	1.02
25Z6	2.85	1.46
25Z6GT	1.95	.98
27	1.75	.90
35A5	2.25	1.13
35B5	2.10	1.06
35C5	1.90	.95
35L6GT	1.95	.98
35W4	1.25	.62
35Y4	1.85	.92
35Z3	1.85	.92
35Z4GT	1.55	.78
35Z5GT	1.45	.73
41	1.95	.98
42	2.15	1.08
43	2.30	1.16
45	2.15	1.08
47	5.30	2.70
50A5	2.25	1.13
50B5	2.10	1.06
50C5	1.90	.95
50C6G	3.35	1.69
50L6GT	1.95	.98
50X6	2.25	1.13
50Y6GT	2.30	1.18
50Y7GT	2.25	1.15
70L7GT	6.95	3.56
71A	2.40	1.22
75	2.00	1.02
78	2.40	1.22
80	1.70	.85
83V	3.40	1.72
84/6Z4	1.85	.94
117L7GT 117M7GT	6.95	3.56
117N7GT	5.60	2.87
117P7GT	5.60	2.87
117Z3	1.85	.94
117Z6GT	3.15	1.61



R.C.A. TRANSISTORS

RCA TYPE	DESCRIPTION	Net Each
Transistors		
2N32-A	Point-Contact Type . . . for pulse or switching applications	12.25
2N77	Junction (p-n-p) Type . . . Hermetically Sealed . . . for low-power, audio-frequency amplifier service	2.80
2N104	Junction (p-n-p) Type . . . Hermetically Sealed . . . for low-power, audio-frequency applications	4.60
2N105	Junction (p-n-p) Type . . . Hermetically Sealed . . . for low-power, audio-frequency amplifier service	2.85
2N109	Junction (p-n-p) Type . . . Hermetically Sealed . . . for large-signal, audio-frequency applications	2.65

SYLVANIA TRANSISTORS

Hermetically Sealed Junction Types

Cat. No.	Type	Application	Net Ea.
2N34	P-N-P	High gain, low power, low freq.	$3.15
2N35	N-P-N	Audio to low R.F. range	3.15
2N68	P-N-P	High power, low freq., low volt.	6.50
2N94	N-P-N	High freq. amp., osc. and computer	4.30
2N94A	N-P-N	High freq. amp., osc. and computer	5.05
2N95	N-P-N	Similar to 2N68	6.50
2N101	N-P-N	Similar to 2N68	6.50
2N102	N-P-N	Similar to 2N68	6.50

GENERAL ELECTRIC CRYSTAL DIODES

General Purpose Types

Cat. No.	Peak Inv. Vol	Av. Rect. Current Ma.	Net Ea.
1N48	85	50	$ .65
1N51	50	25	.50
1N52	85	50	1.40
1N63	125	50	2.50
1N65	85	50	.65
1N75	125	50	2.65

General Purpose Types Matched Pairs

1N48	85	50	1.80
1N52	85	50	3.35
1N63	85	50	6.00

Ceramic Case JAN. Type

Cat. No.	Peak Inv. Vol	Av. Rect. Current Ma.	Net Ea.
1N69	75	40	.90
1N70	125	30	2.40
1N81	50	20	1.95

U.H.F. Type

1N72	5	25	1.00

T.V. Type

Cat. No.	Peak Inv. Vol	Net Ea.
1N64	20	.50

R.C.A. DIODES

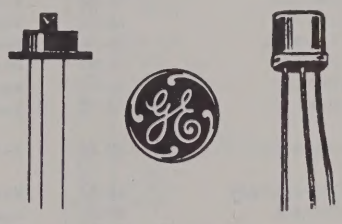
Crystal Diodes	DESCRIPTION	Net Ea.
1N34-A	General-Purpose Type	.58
1N38-A	Large-Signal Type	1.40
1N54-A	High-Back Resistance Type	1.15
1N55-A	Large-Signal Type	2.10
1N56-A	High-Conduction Type	1.15
1N58-A	Large-Signal Type	1.30

GENERAL ELECTRIC DIFFUSED JUNCTION RECTIFIERS

Hermetically Sealed

Widely used in switchboards, computers, magnetic amplifiers and experimental circuits. Types IN151, IN152, IN153 and IN158 (Fig. A.) are attached to mounting brackets. Soldering leads on other types. (Fig. B.)

Cat. No.	Peak Inv. Vol	Av. Rect. Current Ma.	Net Ea.
IN91	100	150	$1.40
IN92	200	100	2.85
IN93	300	75	3.85
IN151	100	500	2.55
IN152	200	500	3.35
IN153	300	500	4.25
IN158	380	500	6.65
IN315	200	100	2.95
IN315A	200	100	3.75

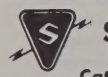


G.E. TRANSISTORS

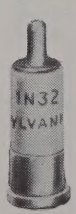
Hermetically Sealed Junction Types

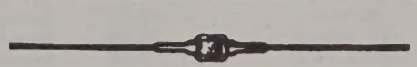
Cat. No.	Type	Application	Net Ea.
2N43	P-N-P	High gain low to med. power	$6.85
2N43A	P-N-P	Extra rugged Sim. to 2N43	6.05
2N44	P-N-P	Intermed. gain low to med. power	5.40
2N45	P-N-P	Med. gain low to med. power	3.75
2N76	P-N-P	Intermediate gain low power	3.25
2N78	N-P-N	High freq. cutoff for R F. & I.F. amps.	9.95
2N81	P-N-P	High gain medium power	7.05

SYLVANIA CRYSTAL DIODES



Cat. No.	Description	Net Ea.
1N21A	Microwave Crystal Diode	2.20
1N21B	Microwave Crystal Diode	2.90
1N21B (2)	Matched pr. 1N21B's	10.05
1N21BR	Microwave Crystal Diode	5.75
1N21B, 1N21BR	Matched pr. 1N21B, 1N21BR	14.00
1N21C	Microwave Crystal Diode	5.05
1N21C (2)	Matched pr. 1N21C's	14.00
1N23A	Microwave Crystal Diode	1.10
1N23B	Microwave Crystal Diode	1.85
1N23B (2)	Matched pr. 1N23B's	4.30
1N23BR	Microwave Crystal Diode	4.30
1N23B, 1N23BR	Matched pr. 1N23B, 1N23BR	10.80
1N23C	Microwave Crystal Diode	5.05
1N23CR	Microwave Crystal Diode	9.40
1N23C (2)	Matched pr. 1N23C's	14.40
1N23C, 1N23CR	Matched pr. 1N23C, 1N23CR	25.90
1N23D	Microwave Crystal Diode	36.00
1N23DR	Microwave Crystal Diode	50.00
1N23D, 1N23DR	Matched pr. 1N23D, 1N23DR	107.75
1N25	Microwave Crystal Diode	5.75
1N26	Microwave Crystal Diode	10.80
1N31	Microwave Crystal Diode	7.20
1N32	Microwave Crystal Diode	14.50
1N34A	Crystal Diode	.75
1N35	Crystal Diode	2.20
1N38A	Crystal Diode	1.30
1N39	Crystal Diode	3.95
1N39A	Crystal Diode	4.70
1N40	Crystal Diode	12.25
1N41	Crystal Diode	11.50
1N42	Crystal Diode	17.25
1N53	Microwave Crystal Diode	43.15
1N53 (2)	Matched pr. 1N53's	104.95
1N54A	Crystal Diode	1.10
1N55A	Crystal Diode	2.20
1N56	Crystal Diode	1.05
1N56A	Crystal Diode	1.10
1N58A	Crystal Diode	1.30
1N59	Crystal Diode	4.30
1N59A	Crystal Diode	5.05
1N60	Crystal Diode	.50
1N63	Crystal Diode	2.50
1N64	Crystal Diode	.50
1N65	Crystal Diode	.65
1N67	Crystal Diode	1.65
1N69	Crystal Diode	.75
1N70	Crystal Diode	2.25
1N71	Crystal Diode	7.20
1N72	Crystal Diode	1.00
1N76	Microwave Crystal Diode	4.70
1N77A	Crystal Diode	36.75
1N78	Microwave Crystal Diode	10.80
1N78A	Microwave Crystal Diode	25.20
1N78A (2)	Matched pr. 1N78A's	57.50
1N78R	Microwave Crystal Diode	21.55
1N79	Microwave Crystal Diode	2.50
1N81	Crystal Diode	1.05
1N82	Crystal Diode	.90
1N82A	Crystal Diode	1.00
1N91	Crystal Diode	1.25
1N92	Crystal Diode	2.20
1N93	Crystal Diode	2.90
1N105	Crystal Diode	.50
1N109	Crystal Diode	.50
1N111	Crystal Diode	1.30
1N112	Crystal Diode	1.05
1N113	Crystal Diode	1.65
1N114	Crystal Diode	1.05
1N115	Crystal Diode	.95
1N119	Crystal Diode	2.10
1N120	Crystal Diode	1.75
1N132	Crystal Diode	.50
1N134	Crystal Diode	2.10





Cat. No.	Description	Net Ea.
1N137A	Crystal Diode	3.85
1N138A	Crystal Diode	3.85
1N150	Microwave Crystal Diode	8.65
1N150R	Microwave Crystal Diode	17.25
1N160	Microwave Crystal Diode	5.75
1N172	Crystal Diode	1.05
1N193	Crystal Diode	3.90
1N194	Crystal Diode	4.30
1N195	Crystal Diode	4.85
1N196	Crystal Diode	5.30
1N200	Crystal Diode	5.05
1N201	Crystal Diode	5.05
1N202	Crystal Diode	5.05
1N203	Crystal Diode	5.05
1N204	Crystal Diode	5.05
1N205	Crystal Diode	5.05
1N206	Crystal Diode	5.05
1N207	Crystal Diode	5.05
1N208	Crystal Diode	5.05
1N209	Crystal Diode	5.05
1N210	Crystal Diode	5.05
1N211	Crystal Diode	5.05
1N212	Crystal Diode	5.05
1N213	Crystal Diode	5.05
1N214	Crystal Diode	5.05
1N215	Crystal Diode	5.05
1N216	Crystal Diode	7.20
1N217	Crystal Diode	7.20
1N218	Crystal Diode	7.20
1N219	Crystal Diode	7.20
1N220	Crystal Diode	7.20
1N221	Crystal Diode	7.20
1N222	Crystal Diode	7.20

SUN RADIO stocks all new types of Diodes and Transistors

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R.C.A. PICTURE TUBES

RCA Type	Net Ea. *	Shape	Envelope	Faceplate	Focus	Deflection	Deflection Angle†
Black & White Picture Tubes							
●5TP4	$58.65	Round	Glass	Clear	Electrostatic	Magnetic	50
7DP4	29.75	Round	Glass	Clear	Electrostatic	Magnetic	50
7JP4	20.80	Round	Glass	Clear	Electrostatic	Electrostatic	—
10BP4-A	14.15	Round	Glass	Filterglass	Magnetic	Magnetic	52
●10FP4-A	18.15	Round	Glass	Filterglass	Magnetic	Magnetic	50
●12KP4-A	21.35	Round	Glass	Filterglass	Magnetic	Magnetic	54
12LP4-A	17.35	Round	Glass	Filterglass	Magnetic	Magnetic	57
14EP4/14CP4	19.35	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
14HP4	20.65	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
16AP4-A	33.35	Round	Metal	Filterglass	Magnetic	Magnetic	53
16DP4-A	33.35	Round	Glass	Filterglass	Magnetic	Magnetic	60
16GP4-B	33.35	Round	Metal	Frosted Filterglass	Magnetic	Magnetic	70
16LP4-A	30.95	Round	Glass	Filterglass	Magnetic	Magnetic	52
16RP4/16KP4	24.00	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
†●16RP4-A/16KP4-A	28.00	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
16TP4	24.00	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
16WP4-A	30.95	Round	Glass	Filterglass	Magnetic	Magnetic	70
17AVP4	25.35	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	90
†●17AVP4-A	29.35	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	90
17BP4-A	24.00	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
●17BP4-B	28.00	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
17CP4	30.00	Rectangular	Metal	Frosted Filterglass	Magnetic	Magnetic	70
17GP4	33.35	Rectangular	Metal	Frosted Filterglass	Electrostatic	Magnetic	70
17HP4/17RP4	25.35	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
†●17HP4-B	29.35	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
17JP4	25.35	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
17LP4/17VP4	25.35	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
†●17LP4-A	29.35	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
17QP4	24.00	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
†●17QP4-A	28.00	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
17TP4	30.00	Rectangular	Metal	Frosted Filterglass	Electrostatic**	Magnetic	70
19AP4-B	36.65	Round	Metal	Frosted Filterglass	Magnetic	Magnetic	66
20CP4	29.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
†20DP4-A/20CP4-A	29.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
†●20DP4-C/20CP4-D	33.20	Rectangular	Glass	*Filterglass	Magnetic	Magnetic	70
†●20HP4-D	34.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
20MP4	43.25	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
†●21ACP4-A	33.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	90
●21ALP4-A	34.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	90
†●21ALP4-B	34.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	90
●21AMP4-A	33.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	90
21AP4	35.20	Rectangular	Metal	Frosted Filterglass	Magnetic	Magnetic	70
●21ATP4	34.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	90
†21AUP4/21AVP4	30.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	72
●21AUP4-A/21AVP4-A	34.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	72
●21AWP4	33.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	72
21EP4-A	29.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
●21EP4-B	33.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
21FP4-A	30.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
†●21FP4-C	34.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
21MP4	36.65	Rectangular	Metal	Frosted Filterglass	Electrostatic**	Magnetic	70
21YP4	30.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
●21YP4-A	34.55	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	70
21ZP4-A	29.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
●21ZP4-B	33.20	Rectangular	Glass	Filterglass	Magnetic	Magnetic	70
●24CP4-A	48.65	Rectangular	Glass	Filterglass	Magnetic	Magnetic	90
●24DP4-A	50.35	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	90
●24YP4	50.35	Rectangular	Glass	Filterglass	Electrostatic**	Magnetic	90
●27MP4	114.40	Rectangular	Metal	Frosted Filterglass	Magnetic	Magnetic	90

RCA Type	Net Ea. *	Shape	Envelope	Faceplate	Focus	Deflection	Deflection Angle†
Color Picture Tubes							
●15GP22	$235.00	Round	Glass	Clear^	Electrostatic	Magnetic	45
●21AXP22	145.00	Round	Metal	Filterglass	Electrostatic	Magnetic	70

*Optional
**Low Voltage
● Aluminized Sil-o-rama

^Flat Filterglass screen plate
†Angle in degrees is horizontal for round tubes and diagonal for rectangular tubes.
List Prices* include Federal Excise Tax.

GENERAL ELECTRIC

POWER TUBES

FOR COMMUNICATIONS AND INDUSTRY

INDUSTRIAL & TRANSMITTING

Cat. No.	Net Each
KC-1	$440.00
GL-1B24A	43.00
GL-1B44	38.00
GL-1B56	38.00
GL-1B58	68.00
GL-C1J	8.69
GL-1L21	14.00
GL-1L22	29.00
GL-1L23	29.00
GL-1L24	49.50
GL-1L25	15.75
GL-1L31	15.75
GL-1L32	14.00
GL-1L33	34.00
GL-1L36	14.00
GL-1L38	25.00
GL-1P21	50.00
GL-1P39	1.75
GL-1P40	2.60
GL-1Q26A	120.00
GL-2B22	21.00
GL-2B23	23.50
GL-2C39A	24.00
GL-2C39B	37.50
GL-2C40	24.00
GL-2C42	21.50
GL-2C43	21.50
GL-2C46	22.00
GL-2H21	100.00
KC-3	350.00
GL-3B24W	11.75
GL-3C23	11.98
3X2500A3	198.00
GL-4D21/4-125A	30.25
GL-4X150A	35.40
GL-4-250A/5D22	41.25
4-1000A	135.00
GL-5C21/C6J	26.40
GL-5C24	45.00
GL-7C29	130.00
GL-7D21	320.00
GL-8D21	1300.00
GL-9C24	570.00
FG-27A	26.00
FG-81A	18.00
FG-97	25.00
FG-98A	27.00
GL-100TH	18.25
FG-105	48.00
FG-154	47.50
FG-166	160.00
FG-172	65.00
GL-207	240.00
GL-242C	15.50
FP-265	56.50
GL-266B	218.50
FG-280	62.00
GL-393A	11.98
FP-400	41.20
GL-411	310.00
GL-414	120.00
GL-441	4.50
GL-575A	21.00
GL-592	30.25
GL-627	22.00
GL-672A	35.00
GL-673	21.00
GL-678	47.00
GL-801A	5.60
GL-802	5.15
GL-803	24.30

Cat. No.	Net Each
GL-805	13.50
GL-809	4.20
GL-810	16.25
GL-811A	5.00
GL-812A	5.00
GL-813	18.00
GL-814	14.25
GL-815	8.65
GL-816	1.65
GL-828	15.00
GL-829B	16.25
GL-832A	12.90
GL-833A	49.50
GL-836	9.00
GL-837	5.80
GL-838	13.75
GL-845	13.75
GL-851	340.00
GL-857B	218.50
GL-862A	1322.00
GL-866A	2.45
GL-868/PJ-23	2.85
GL-869B	138.00
GL-870A	1475.00
GL-872A/872	8.20
GL-880	510.00
GL-889A	210.00
GL-891	237.00
GL-892	237.00
GL-893A	664.00
GL-895	950.00
GL-898A	1322.00
GL-918	3.10
GL-919	4.65
GL-920	4.15
GL-921	2.95
GL-922	2.60
GL-923	2.35
GL-927	3.00
GL-929	1.50
GL-930	2.45
GL-931A	8.60
GL-1000T	137.50
GL-1616	8.65
GL-1850A	565.00
GL-5513	275.00
GL-5516	7.95
GL-5518	525.00
GL-5544	27.00
GL-5545	35.00
GL-5549	370.00
GL-5550/GL-415	41.00
GL-5551/FG-271	65.00
GL-5552/FG-235A	99.00
GL-5553A	216.00
GL-5554/FG-259B	163.00
GL-5555/FG-238B	316.00
GL-5556/PJ-8	13.50
GL-5557/FG-17	8.50
GL-5558/FG-32	15.50
GL-5559/FG-57	22.00
GL-5560/FG-95	28.00
GL-5561/FG-104	40.00
GL-5564/GL-507	870.00
GL-5581	2.25
GL-5588	120.00
GL-5593	87.50
GL-5620/FB-50	14.50
GL-5621/B-6	13.50
GL-5622/B-25	12.50
GL-5623/B-47	13.50
GL-5624/B-46	13.50
GL-5625/KC-4	225.00
GL-5626/FA-15	49.50
GL-5627/FA-6	27.00

Cat. No.	Net Each
GL-5628/FA-13	26.00
GL-5629/FA-14	21.00
GL-5630	1000.00
GL-5632	12.15
GL-5674	100.00
GL-5681	1780.00
GL-5720/FG-33	23.00
GL-5728/FG-67	26.00
GL-5736	160.00
GL-5739/FP-62	49.50
GL-5740/FP-54	88.00
GL-5762	195.00
GL-5779	80.00
GL-5788	370.00
GL-5820	1200.00
GL-5822	116.00
GL-5830/FG-41	200.00
GL-5855	70.00
GL-5894	24.75
GL-5921	40.00
GL-5922	40.00
GL-5948	490.00
GL-5973	310.00
GL-6011	13.00
GL-6017	340.00
GL-6019	620.00
GL-6039	620.00
GL-6044	56.00
GL-6130	10.50
GL-6161	115.00
GL-6166	905.00
GL-6181	835.00
GL-6182	2100.00
GL-6183	680.00
GL-6228/GL-506	3300.00
GL-6237	10000.00
GL-6238	10000.00
GL-6239	10000.00
GL-6240	10000.00
GL-6241	10000.00
GL-6242	10000.00
GL-6251	2200.00
GL-6283	155.00
GL-6299	56.00
GL-6301	120.00
GL-6346	70.75
GL-6347	104.75
GL-6348	221.75
GL-6442	37.50
GL-6452	93.00
GL-6504	2100.00
GL-6509	420.00
GL-6511	121.75
GL-6512	194.00
GL-6513	347.00
GL-6515	938.00
GL-8000	14.50
GL-8002	160.00
GL-8002R	190.00
GL-8005	8.55
GL-8008	8.20
GL-8013A	10.30
GL-8020	24.00

INDUSTRIAL RECEIVING

OA2	1.37
OA3/VR-75	1.27
OA4G	1.60
OB2	1.47
OB3/VR-90	1.65
OC3/VR-105	1.37
OD3/VR-150	1.27
2A4G	4.80
2D21	1.85
2E24	4.65

Cat. No.	Net Each
2E26	3.85
2E30	2.60
2X2A	2.17
5R4GY	2.20
5Y3WGTB	5.25
6AC7WA	5.45
6AJ5	3.50
6AN5	3.65
6AS6	3.46
6AU6WA	2.20
6D4	2.85
6J4	8.09
6SK7WA	2.20
6X4WA	3.17
12AT7WA	4.15
12AY7	3.00
25C6G	3.20
502A	1.85
807	2.50
842	4.05
874	3.10
884	1.85
885	2.00
955	3.60
956	7.00
957	4.90
1612	3.00
1613	2.45
1614	2.55
1619	2.50
1620	6.25
1621	1.95
1622	2.50
1624	4.00
1625	2.65
1629	1.40
1633	1.95
2050	1.85
5610	2.25
5636	13.50
5636A	13.50
5651	2.25
5654	2.90
5654/6AK5W	2.90
5654/6AK5W/6096	7.75
5662	3.20
5663	1.90
5670	4.85
5670WA	8.10
5686	3.30
5687	4.50
5691	8.45
5692	8.15
5693	6.40
5696	1.90
5718	6.85
5718A	6.85
5719	6.85
5719A	6.85
5725	3.25
5725/6AS6W	3.25
5725/6AS6W/6187	8.80
5726	1.45
5726/6AL5W	1.45
5726/6AL5W/6097	3.00
5727	2.70
5727/2D21W	2.70
5749	2.00
5749/6BA6W	2.00
5750	2.50
5750/6BE6W	2.50
5751	3.35
5751WA	4.80
5763	1.93
5797	13.50

Cat. No.	Net Each
5798	17.45
5814A	3.25
5814WA	5.15
5824	3.35
5840	10.30
5840A	10.30
5844	2.20
5879	1.75
5881	3.50
5896	8.50
5896A	8.50
5899	10.95
5899A	10.95
5902	12.60
5902A	12.60
5915A	1.45
5963	1.40
5964	1.50
5965	2.25
6005	3.55
6005/6AQ5W	3.55
6005/6AQ5W/6095	6.90
6021	11.05
6021A	11.05
6046	1.15
6072	4.55
6087	5.25
6096/CT	4.95
6111	12.55
6111A	12.55
6112	12.20
6112A	12.20
6134	5.45
6135	1.90
6136	2.20
6137	2.20
6146	4.90
6159	4.90
6201	4.15
6202	3.17
6203	3.97
6211	2.25
6215	3.00
6265	4.00
6386	7.15
6463	2.85
6485	1.60
9001	4.00
9002	2.80
9003	3.80
9004	2.30
9005	3.45

COMMUNICATION

6660/6BA6	2.05
6661/6BH6	2.55
6662/6BJ6	2.20
6663/6AL5	1.77

INDUSTRIAL CATHODE-RAY

2AP1A	10.85
2BP1	11.00
3AP1A	19.50
3BP1A	16.50
3KP1	16.70
3MP1	22.50
3UP1	27.00
5BP1A	22.50
5CP1A	27.00
5CP7A	31.40
5FP7A	27.50
5FP14	29.50
5FP14A	28.80
5FP25	49.50
5QP4	49.50
5UP1	19.65
7BP7A	40.00
7UP7	49.50

R.C.A. SPECIAL PURPOSE TUBES

TYPE	DESCRIPTION	Net Ea.
1P21	Multiplier Phototube, High-Sensitivity Type	50.00
1P22	Multiplier Phototube, Eye-Response Type	14.75
1P28	Multiplier Phototube, Ultra-Violet Type	22.00
1P29	Gas Phototube, Colorimeter Type	2.95
1P37	Gas Phototube, Blue-Sensitive Type	2.85
1P39	Vacuum Phototube, Blue-Sensitive Type	1.75
1P40	Gas Phototube, Red-Sensitive Type	2.60
1P41	Gas Phototube, Red-Sensitive Type	2.80
1P42	Vacuum Phototube, Blue-Sensitive Type	11.00
2AP1-A	C-R Oscillograph Type	10.85
2BP1	C-R Oscillograph Type	11.00
2BP11	C-R Oscillograph Type	12.50
2C39A	UHF Power Triode Forced-Air-Cooled Type	25.00
2E24	VHF Beam Power Tube	4.65
2E26	VHF Beam Power Tube	3.85
2F21	Monoscope	144.00
2J50	Magnetron	192.00
2K26	Klystron 6250-7060 Mc	56.50
2X2-A	Vacuum Rectifier	2.15
3AP1-A	C-R Oscillograph Type	19.50
3B25	Xenon Rectifier	5.90
3B28	Xenon Rectifier	7.15
3BP1-A	C-R Oscillograph Type	16.50
3C23	Mercury-Vapor Thyratron	12.50
3C33	Power Amplifier	21.25
3C45	See Type 6130/3C45	
3D22-A	Xenon Thyratron	16.40
3E22	Beam Power Tube, Twin Type	8.30
3E29	Beam Power Tube, Twin Type	20.25
3FP7-A	C-R Oscillograph Type	23.00
3JP1	C-R Oscillograph Type	20.50
3JP7	C-R Oscillograph Type	23.50
3KP1	C-R Oscillograph Type	16.70
3KP11	C-R Oscillograph Type	18.60
3MP1	C-R Oscillograph Type	22.50
3RP1	C-R Oscillograph Type	16.45
3RP1 A	C-R Oscillograph Type	22.80
3RP4	C-R Oscillograph Type	18.50
4-65A	VHF Power Tetrode	20.00
4-125A/4D21	VHF Power Tetrode	30.25
4-250A/5D22	VHF Power Tetrode	41.25
4-1000A	Power Tetrode, Forced-Air-Cooled Type	132.00
4C33	Power Triode, Forced-Air-Cooled Type	182.75
4E27/8001	Power Pentode	24.50
4E27A/5-125B	Power Pentode	35.75
4J50	Magnetron with Integral Magnet	350.00
4J52	Magnetron with Integral Magnet	270.00
4X150A	UHF Power Tetrode, Forced-Air-Cooled	35.40
4X150D	UHF Power Tetrode, Forced-Air-Cooled	48.00
4X500A	VHF Power Tetrode, Forced-Air-Cooled	121.00
5ABP1	C-R Oscillograph Type	29.50
5ABP7	C-R Oscillograph Type	35.00
5ABP11	C-R Oscillograph Type	35.25
5AUP24	C-R Oscillograph Type	93.00
5AYP4	View-Finder Kinescope, Electrostatic Focus	47.50
5AZP4	Projection Tube for Closed Circuit TV	81.50
5BP1-A	C-R Oscillograph Type	23.80
5CP1-A	C-R Oscillograph Type	27.00

FOR BROADCAST, RESEARCH AND INDUSTRIAL USE

TYPE	DESCRIPTION	Net Ea.
5CP7-A	C-R Oscillograph Type	31.40
5CP11-A	C-R Oscillograph Type	31.40
5CP12	C-R Oscillograph Type	31.40
5FP4-A	View-Finder Kinescope	41.75
5FP7-A	C-R Oscillograph Type	27.50
5FP14	C-R Oscillograph Type	29.50
5UP1	C-R Oscillograph Type	17.50
5UP7	C-R Oscillograph Type	25.40
5UP11	C-R Oscillograph Type	25.40
5WP11	Transcriber Kinescope	87.00
5WP15	C-R Flying-Spot Type	102.00
5ZP16	C-R Flying-Spot Type	100.00
7BP7-A	C-R Oscillograph Type	40.00
7C24	See type 5762/7C24	
7CP1	C-R Oscillograph Type	30.75
7CP4	Monitor Kinescope	40.00
7MP7	C-R Oscillograph Type	38.00
7MP14	C-R Oscillograph Type	40.00
7NP4	Projection Kinescope	600.00
7QP4	Monitor Kinescope	39.50
7TP4	Monitor Kinescope	54.00
7VP1	C-R Oscillograph Type	25.00
7WP4	Projection Kinescope	630.00
8D21	TV Twin Power Tetrode	1300.00
9C21	Power Triode, Water-Cooled Type	922.00
9C22	Power Triode, Forced-Air-Cooled Type	1300.00
9C25	Power Triode, Forced-Air-Cooled Type	1080.00
10KP7	C-R Oscillograph Type	55.00
10SP4	Monitor Kinescope	64.50
10Y	Power Triode	3.95
12DP7-A	C-R Oscillograph Type	72.50
12DP7B	C-R Oscillograph Type	72.50
16ADP7	C-R Oscillograph Type	55.00
105	Mercury-Vapor Thyratron	48.00
172	Mercury-Vapor Thyratron, Metal Type	65.00
207	Power Triode, Water-Cooled Type	240.00
211	Power Triode	13.75
217-C	Vacuum Rectifier	21.17
575-A	Mercury-Vapor Rectifier	20.00
579-B	Vacuum Rectifier	15.00
627	Mercury-Vapor Thyratron	22.00
629	Gas Thyratron	13.00
672-A	Mercury-Vapor Thyratron	35.00
673	Mercury-Vapor Rectifier	20.00
676	Mercury-Vapor Thyratron	55.00
677	Mercury-Vapor Thyratron	55.00
800	Power Triode	11.50
801-A	Power Triode	5.60
802	Power Pentode	5.15
803	Power Pentode	24.30
804	Power Pentode	17.50
805	Power Triode	13.50
806	Power Triode	34.25
807	Beam Power Tube	2.50
808	Power Triode	12.85
809	Power Triode	4.20
810	Power Triode	16.25
811-A	Power Triode	5.00

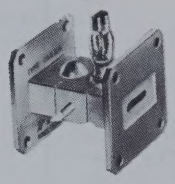
TYPE	DESCRIPTION	Net Ea.
812-A	Power Triode	5.00
813	Beam Power Tube	18.00
814	Beam Power Tube	14.25
815	Beam Power Tube, Twin Type	12.35
816	Mercury-Vapor Rectifier	1.65
826	UHF Power Triode	12.50
827-R	Power Tetrode, Forced-Air-Cooled Type	195.00
828	Beam Power Tube	15.00
829-B	VHF Beam Power Tube, Twin Type	16.25
830-B	Power Triode	11.50
832-A	VHF Beam Power Tube, Twin Type	12.90
833-A	Power Triode	49.50
834	UHF Power Triode	14.50
836	Vacuum Rectifier	9.00
837	Power Pentode	5.80
838	Power Triode	13.75
841	Power Triode	4.85
842	Power Triode	4.05
845	Power Triode	13.75
846	Power Triode, Water-Cooled Type	250.00
849	Power Triode	138.00
851	Power Triode	340.00
857-B	Mercury-Vapor Rectifier	218.50
860	Power Tetrode	34.50
861	Power Tetrode	178.25
862-A	Power Triode, Water-Cooled Type	1322.00
865	Power Tetrode	11.50
866-A	Mercury-Vapor Rectifier	2.45
868	Gas Phototube, Red-Sensitive Type	2.85
869-B	Mercury-Vapor Rectifier	138.00
872-A	Mercury-Vapor Rectifier	8.20
878	Vacuum Rectifier	12.75
880	Power Triode, Water-Cooled Type	510.00
889-A	Power Triode, Water-Cooled Type	210.00
889R-A	Power Triode, Forced-Air-Cooled Type	295.00
891	Power Triode, Water-Cooled Type	237.00
891-R	Power Triode, Forced-Air-Cooled Type	385.00
892	Power Triode, Water-Cooled Type	237.00
892-R	Power Triode, Forced-Air-Cooled Type	385.00
893-A	Power Triode, Water-Cooled Type	664.00
893A-R	Power Triode, Forced-Air-Cooled Type	1212.00
898-A	Power Triode, Water-Cooled Type	1322.00
902-A	C-R Oscillograph Type	12.50
908-A	C-R Oscillograph Type	24.40
912	C-R Oscillograph Type	155.00
914-A	C-R Oscillograph Type	145.00
917	Vacuum Phototube, Red-Sensitive Type	4.65
918	Gas Phototube, Red-Sensitive Type	3.10
919	Vacuum Phototube, Red-Sensitive Type	4.65
920	Gas Phototube, Red-Sensitive Twin Type	4.15
921	Gas Phototube, Red-Sensitive Type	2.65
922	Vacuum Phototube, Red-Sensitive Type	2.60
923	Gas Phototube, Red-Sensitive Type	2.35
924	Gas Phototube, Red-Sensitive Type	3.30
925	Vacuum Phototube, Red-Sensitive Type	2.85
926	Vacuum Phototube, Colorimeter Type	2.85
927	Gas Phototube, Red-Sensitive Type	2.70
928	Gas Phototube, Red-Sensitive, Non-Directional Type	3.35
929	Vacuum Phototube, Blue-Sensitive Type	1.50
930	Gas Phototube, Red-Sensitive Type	2.45

INDUSTRIAL TUBES

TYPE	DESCRIPTION	Net Ea.
931-A	Multiplier Phototube, General-Purpose Type	8.60
934	Vacuum Phototube, Blue-Sensitive Type	3.40
935	Vacuum Phototube, Ultra-Violet Type	7.80
1616	Vacuum Rectifier	8.65
1623	AF Oscillator Triode	4.05
1624	Beam Power Tube	4.00
1625	Beam Power Tube	2.65
1699	Custom-Built Monoscope	‡‡
1850-A	Iconoscope	565.00
1854	See Type 6474/1854	
1904	See Type 5728/FG-67	
1946	Vacuum-Gauge Tube, Thermocouple Type	10.90
1947	Vacuum-Gauge Tube, Pirani Type	13.15
1949	Vacuum-Gauge Tube, Ionization Type	11.30
1950	Vacuum-Gauge Tube, Ionization Type	7.80
2020	Multiplier Phototube Flat-Face Head-On, Blue Sensitive Type with Low Resistant Photocathode	88.00
5527	2-Inch Iconoscope	150.00
5550	Ignitron Size A, AC Welder Type	45.00
5551	Ignitron Size B, AC Welder Type	72.00
5552	Ignitron Size C, AC Welder Type	110.00
5553-A	Ignitron Size D, AC Welder Type	239.00
5554	Ignitron, Rectifier Type	171.50
5555	Ignitron, Rectifier Type	333.50
5556	Amplifier Triode	13.50
5557	Mercury-Vapor Thyratron	8.50
5558	Mercury-Vapor Rectifier	15.50
5559	Mercury-Vapor Thyratron	22.00
5560	Mercury-Vapor Thyratron	28.00
5561	Mercury-Vapor Rectifier	40.00
5563-A	Mercury-Vapor Thyratron	47.00
5581	Gas Phototube, Blue-Sensitive Type	2.25
5582	Gas Phototube, Blue-Sensitive Type	4.30
5583	Gas Phototube, Blue-Sensitive Type	3.70
5584	Gas Phototube, Blue-Sensitive Type	4.15
5588	UHF Power Triode, Forced-Air-Cooled Type	120.00
5592	FM Power Triode, Forced-Air-Cooled Type	1229.00
5604-A	Power Triode Forced-Air-Cooled Type	540.00
5652	Vacuum Phototube, Facsimile Type	6.55
5653	Vacuum Phototube, Blue-Sensitive Type	1.15
5671	Power Triode, Forced-Air-Cooled Type	1250.00
5713	VHF Power Triode, Forced-Air-Cooled Type	176.00
5728/FG-67/ 1904	Mercury-Vapor Thyratron	26.00
5762/7C24	Power Triode, Forced-Air-Cooled Type	195.00
5770	Power Triode, Water-Cooled Type	995.00
5771	Power Triode, Water-Cooled Type	543.00
5786	Power Triode, Forced-Air-Cooled Type	87.50
5819	Multiplier Phototube, Head-on, Blue-Sensitive Type	55.00
5820	Image Orthicon, General-Purpose Type	1200.00
5822	Ignitron, Frequency-Changer Welder Type	130.00
5825	Vacuum Rectifier	13.00
5890	Remote-Cutoff Beam Pentode	44.00
5894	Beam Power Tetrode	24.75
5946	Power Triode, Forced-Air-Cooled Type for Pulse Use	115.00
6130/3C45	Hyrodrogen Thyratron	17.80
6146	VHF Beam Power Tube	4.90
6159	VHF Beam Power Tube	4.90
6161	UHF Power Triode	115.00
6166	VHF Power Tetrode, Forced-Air-Cooled Type	905.00
6181	UHF Power Tetrode, Forced-Air-Cooled Type	835.00
6198	Vidicon, Industrial TV Camera Tube	315.00
6199	Multiplier Phototube, Small, Head-On, Blue-Sensitive Type	50.00
6217	Multiplier Phototube, Head-On, Red-Sensitive Type	70.00
6293	VHF Beam Power Tube Pulse Modulator Service	5.65
6323	Multiplier Phototube for Headlight Control	7.95
6326	Vidicon for TV Film Pickup	565.00
6328	Multiplier Phototube for Headlight Control Service	9.70
6342	Multiplier Phototube Flat-Face Head-On, Blue-Sensitive Type with Short Time Resolution	69.00
6372	Multiplier Phototube 12⅞ sq. in. Semi-cylindrical Cathode, Blue-Sensitive Type	344.00
6383	UHF Power Triode Liquid and Forced-Air-Cooled	122.00
6405/1640	Gas Phototube for Industrial Service	7.15
6448	UHF Beam Power Tube, Water Cooled Type	4200.00
6474/1854	Image Orthicon Color TV Type	1700.00
6521	Magnetron	225.00
6524	Beam Power Tube, Twin Type	15.75
6472	Multiplier Phototube for Headlight Control Service, Flexible Lead Type	10.20
6570	Vacuum Phototube, Red Sensitive Type	7.60
6571	C-R Oscillograph Type	57.50
6655	Multiplier Phototube, Flat Face, Head-On, Blue Sensitive Type	55.00
6694	Photoconductive Cell	5.35
8000	Power Triode	14.50
8003	Power Triode	14.00
8005	Power Triode	8.55
8008	Mercury-Vapor Rectifier	8.20
8012-A	UHF Power Triode	15.50
8013-A	Vacuum Rectifier	10.30
8020	Vacuum Rectifier	24.00
8025-A	UHF Power Triode	12.35

INDUSTRIAL RECEIVING TYPES

RCA TYPE	DESCRIPTION	Net Ea.
OA2	Voltage Regulator, 151 Volts, Miniature Type	$1.26
OA3	Voltage Regulator, 75 Volts	1.27
OA4-G	Glow-Discharge Triode	1.48
OB2	Voltage Regulator, 108 Volts, Miniature Type	1.39
OC3	Voltage Regulator, 108 Volts	1.27
OD3	Voltage Regulator, 153 Volts	1.27
1C21	Glow-Discharge Triode	3.85
2A4-G	Thyratron	2.40
2C40	Lighthouse Triode	26.80
2C43	Lighthouse Triode	21.50
2D21	Xenon Thyratron, Miniature Type	2.00
3A4	Output Pentode, Miniature Type	1.20
3A5	HF Twin Triode, Miniature Type	1.22
5R4-GY	Vacuum Rectifier	1.72
6AG7-Y	Power Amplifier Pentode, Metal Type	2.35
6AS6	Sharp-Cutoff Pentode, Miniature Type	3.46
6AS7-G	Low-Mu Twin Power Triode	4.45
6F4	UHF Oscillator Triode, Acorn Type	7.00
6J4	UHF Amplifier Triode, Miniature Type	6.22
6L4	UHF Oscillator Triode, Acorn Type	6.80
6SJ7-Y	Sharp-Cutoff Pentode, Metal Type	1.35
12A6	Beam Power Amplifier, Metal Type	1.64
12AY7	Medium-Mu Twin Triode, Miniature Type	3.23
12L8-GT	Twin-Pentode Power Amplifier	2.35
12SW7	Twin-Diode Triode, Metal Type	1.45
12SX7-GT	Twin-Triode Amplifier	1.75
12SY7	Pentagrid Converter, Metal Type	1.60
26A6	Remote-Cutoff Pentode, Miniature Type	3.20
26A7-GT	Twin AF Beam Power Amplifier	6.75
26C6	Twin-Diode Triode, Miniature Type	2.20
26D6	Pentagrid Converter, Miniature Type	3.00
83	Full-Wave Mercury-Vapor Rectifier	1.23
502-A	Xenon Thyratron, Metal Type	1.85
884	Gas Thyratron	1.85
885	Gas Thyratron	2.00
954	UHF Amplifier Pentode, Acorn Type	6.95
955	UHF Oscillator Triode, Acorn Type	4.00
956	UHF Remote-Cutoff Pentode, Acorn Type	7.20
957	UHF Oscillator Triode, Acorn Type	4.90
958-A	UHF Amplifier Triode, Acorn Type	7.50
959	UHF Sharp-Cutoff Pentode, Acorn Type	7.95
991	Voltage Regulator	.87
1609	Amplifier Pentode, Low-Microphonic Type	14.50
1612	Pentagrid Amplifier, Low-Microphonic, Metal Type	3.00
1613	RF Power Pentode, Metal Type	2.45
1614	Beam Power Amplifier, Metal Type	2.55
1619	Beam Power Amplifier, Metal Type	2.50
1620	Sharp-Cutoff Pentode, Low-Microphonic, Metal Type	6.25
1621	Power Amplifier Pentode, Metal Type	1.95
1622	Beam Power Amplifier, Metal Type	2.50
1626	RF Oscillator Triode	1.85
1629	Electron-Ray Tube	1.40
1631	Beam Power Amplifier, Metal Type	3.20
1632	Beam Power Amplifier, Metal Type	3.35
1634	Twin-Triode Amplifier, Metal Type	1.55
1635	AF Twin Power Triode	2.00
1945	Vacuum-Gauge Tube, Hydrogen-Sensitive Type	135.00
2050	Xenon Thyratron	1.85
5618	VHF Power Pentode, Miniature Type	4.12
5651	Voltage-Reference Tube, Miniature Type	2.24
5654	Sharp-Cutoff Pentode, Miniature Type	3.10
5675	UHF Triode, "Pencil" Type	13.55
5690	Full-Wave Vacuum Rectifier, Special-Red Type	9.35
5691	High-Mu Twin Triode, Special-Red Type	8.45
5692	Medium-Mu Twin Triode, Special-Red Type	8.15
5693	Sharp-Cutoff Pentode, Special-Red Type	6.40
5696	Xenon Thyratron, Miniature Type	1.90
5718	UHF Medium-Mu Triode, Subminiature Type	5.95
5719	High-Mu Triode, Subminiature Type	5.85
5726	Twin Diode, Miniature Type	1.65
5734	Mechano-Electronic Transducer Triode, for Vibration Measurements	18.00
5751	High-Mu Twin Triode, Miniature Type	3.80
5763	VHF Beam Power Amplifier, Miniature Type	1.93
5814-A	Medium-Mu Twin Triode, Miniature Type	3.90
5823	Glow-Discharge Triode, Miniature Type	1.44
5840	Sharp-Cutoff Pentode, Subminiature Type	8.85
5876	UHF Triode, "Pencil" Type	13.55
5879	Sharp-Cutoff Pentode, Miniature, Low-Noise Type	1.75
5893	UHF Triode, "Pencil" Type for Pulse Use	19.40
5915	Pentagrid Amplifier, Miniature Type for Computer Use	1.20
5963	Medium-Mu Twin Triode, Miniature Type for Computer Use	1.40
5964	Medium-Mu Twin Triode, Miniature Type for Computer Use	1.50
5965	Medium-Mu Twin Triode, Miniature Type for Computer Use	2.55
6012	Gas Thyratron	5.95
6073	Voltage Regulator, 151 Volts, Miniature Type	3.40
6074	Voltage Regulator, 108 Volts, Miniature Type	3.85
6080	Low-Mu Twin Power Triode	6.00
6082	Low-Mu Twin Power Triode For Aircraft Use	5.30
6101	Medium-Mu Twin Triode, Miniature Type	7.25
6173	UHF Diode, "Pencil" Type for Pulse-Detection Service	12.10
6197	Power Pentode, Miniature Type for Computer Use	2.55
6211	Medium-Mu Triode, Miniature Type for Computer Use	2.55
6263	UHF Triode, "Pencil" Type with External Plate Radiator	20.00
6264	UHF Triode, "Pencil" Type with External Plate Radiator	20.00
6417	VHF Beam Power Amplifier, Miniature Type	1.93
9001	UHF Sharp-Cutoff Pentode, Miniature Type	4.00
9002	UHF Oscillator Triode, Miniature Type	2.85
9003	UHF Remote-Cutoff Pentode, Miniature Type	3.80
9004	UHF Diode, Acorn Type	3.35
9005	UHF Diode, Acorn Type	4.05
9006	UHF Diode, Miniature Type	1.90



SYLVANIA

INDUSTRIAL, SPECIAL PURPOSE AND POWER TUBES

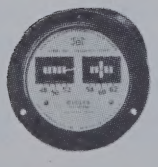
Type	Description	Net Price
OA2	Gas Tube	$ 1.26
OA3	Gas Tube	1.27
OA4G	Gas Tube	1.48
OA5	Trigger Tube	5.40
OB2	Gas Tube	1.39
OB3	Gas Tube	1.65
OC3	Gas Tube	1.27
OD3	Gas Tube	1.27
1AC5	Subminiature	1.50
1AD5	Subminiature	1.50
1B24A	TR Tube	23.75
1B35A	ATR Tube	7.25
1B37A	ATR Tube	7.50
1B63A	TR Tube	24.50
1C8	Subminiature	1.40
1D3	Subminiature	2.45
1D21/SN4	Strobotron	6.50
1E8	Subminiature	1.50
1P39	Photo Tube	1.75
1S6	Subminiature	1.40
1T6	Subminiature	1.50
1V5	Subminiature	1.40
1W5	Subminiature	1.40
2A4G	Gas Triode	2.40
2C36	Rocket Tube	47.50
2C37	Rocket Tube	47.50
2D21	Gas Tetrode	2.00
2E24	Transmitting Tube	4.65
2E26	Transmitting Tube	3.85
2E30	Transmitting Tube	2.60
2J42	Magnetron	111.50
2J55	Magnetron	143.00
2X2A	Rectifier	2.15
3A4	Power Amplifier	1.20
3A5	Miniature Amplifier	1.30
3J31	Magnetron	275.00
4C35	Hydrogen Thyratron	20.25
4C35A	Hydrogen Thyratron	29.50
4J50	Magnetron	306.00
4J52	Magnetron	322.00
5C22	Hydrogen Thyratron	35.25
5C22A	Hydrogen Thyratron	38.25
5R4GY	Voltage Rectifier	1.90
6AD4	Subminiature	3.50
6AJ5	Pentode Amplifier	3.50
6AK4	High Freq. Triode Amplifier	2.85
6AN6	Miniature Rectifier	3.75
6AS6	RF Amplifier	3.45
6AS7G	Duotriode Amplifier	4.69
6AZ5	Double Diode	3.65
6BA4 (RT-469)	Rocket Tube	16.00
6BA5	Subminiature	4.45
6BF7W	Subminiature	4.45
6BL6	Klystron	59.00
6BM6	Klystron	66.00
6BM6A	Klystron	80.00
6D4	Gas Tube	2.85
6J4	Triode Amplifier	8.09
6SJ7WGT	RF Pentode	2.45
6SL7WGT	Double Triode	3.00
6SN7WGT	Double Triode	2.75
6V6GTY	Beam Power Amplifier	1.08
6X5WGT	Full Wave Rectifier	2.00
7AK7	Lock-in Pentode	6.30
12AY7	Medium Mu Duotriode	3.23
25A7GT	Power Amplifier	4.00
26D6	Heptode	2.85
28D7	Double Beam Power Amplifier	2.85
28D7W	Double Beam Power Amplifier	9.75
921	Photo Tube	2.65
922	Photo Tube	2.60
929	Photo Tube	1.50
930	Photo Tube	2.45
931A	Photo Tube	8.60
1222	Power Amplifier	2.45
1229	Tetrode	6.40
1237	Full Wave Argon Rectifier	5.00
1247	Polymeter Probe Diode	6.00
1273	Pentode	1.50
1280	Pentode	1.50
1907	Hydrogen Thyratron	220.00
2050	Gas Tetrode	1.85
5636	Subminiature Pentode	13.50
5639	Subminiature Pentode	11.50
5641	Subminiature Diode	7.50
5642	Submin. Half Wave Rectifier	2.60
5643	Subminiature Tetrode	10.60
5644	Sub. Cold Cathode Regulator	12.25
5647	Subminiature Diode	7.50
5654/6AK5W	Miniature Pentode	3.00
5670	Medium Mu Double Triode	4.85
5675	Pencil Tube	13.55
5679	Duodiode	1.35
5718	Medium Mu Triode	6.85
5719	High Mu Triode	6.85
5722	Noise Generating Diode	6.40
5726/6AL5W	Double Diode	1.45
5749/6BA6W	Semi-Remote Cut-off Pentode	2.00
5751	High Mu Double Triode	3.35
5763	VHF Beam Power Amplifier	1.93
5764	Rocket Tube	73.25
5765	Rocket Tube	73.25
5767	Rocket Tube	73.25
5768	Rocket Tube	51.25
5794	Pencil Tube	10.95
5814A	Miniature Twin Triode	3.25
5836	Klystron	91.75
5837	Klystron	106.00
5840	Subminiature Pentode	10.30
5845	Temp. Limited Double Diode	9.25
5876	Pencil Tube	13.55
5879	Sharp Cut-off A-F Pentode	1.75
5896	Subminiature Double Diode	8.50
5899	Subminiature Pentode	10.95
5902	Beam Power Pentode	12.60
5931	Ruggedized Double Diode	6.50
5932	Ruggedized Beam Pentode	10.50
5933	Ruggedized Beam Pentode	12.85
5977	Subminiature Triode	8.15
5987	Subminiature Triode	11.50
6005/6AQ5W/6095	Beam Power Pentode	6.90
6018 (SB-846F)	Rocket Tube	73.25
6021	Subminiature Triode	11.90
6027 (2J42A)	Magnetron	205.00
6110	Subminiature Double Diode	13.00
6111	Subminiature Double Triode	12.55
6112	Subminiature Double Triode	12.00
6146	VHF Beam Power Amplifier	4.90
6199	Photo Tube	50.00
6205	Subminiature Pentode	11.00
6206	Subminiature Pentode	11.50
6263	Pencil Tube	20.00
6264	Pencil Tube	20.00
6271	Magnetron	160.00
6350	Medium Mu Double Triode	3.00
6476	Decode Counter Tube	22.25
6482	Decode Converter Tube	19.25
6483	Trigger Tube	3.85
9001	Pentode	4.00
9002	Triode	2.85
9003	Pentode	3.80
HT-457	Hydrogen Thyratron	22.00
R1111	Gas Pressure Measuring Tube	6.75
R1111M	Matched Pair, R1111's	16.15
R1130B	Glow Modulator Tube	17.65
R1131C	Glow Modulator Tube	17.65
R4330	Strobotron	15.35
RT-434	Rocket Tube	36.75
S-340	Strobotron	56.00
S-413	Strobotron	13.80
SA-309	Strobotron	7.50
SN5	Strobotron	11.50
X6030	Lock-in Noise Diode	3.50

5 REEDS

Used on standby power equipment. Handy for accurately measuring frequency of power source. Five reeds, 58-62 cycles, 100-130 volts. Other characteristics same as Model 30-F. See Table of Dimensions, lines 4 and 5. (This meter also is made with 7 reeds.)

31-F (illustrated). 58-62 cy., 3¼" Metal Case.....**$23.65**

31-FX. 58-62 cy., 3½" Molded Case, MIL-M-6A mtg.....**$23.65**



10 REEDS

Range: 48-52 and 58-62 cycles. Double window for ease of reading either range. Often specified for export. 100-130 volts; 130 ohms per volt; 1 watt power consumption: Accuracy ±0.3% at reference temperature. Flush panel mounting.

30-F (illustrated). 48-52 and 58-62 cy., 3¼" Metal Case. **$27.50**

30-FX. 48-52 and 58-62 cy., 3½" Molded Case, MIL-M-6A mtg. **$27.50**

J-B-T
VIBRATING REED FREQUENCY METERS

J-B-T Vibrating Reed Frequency Meters are used extensively in radio, telephone, and television service, on engine generator sets, in laboratories, in many types of electronic equipment, on panel and control boards, in inspection set-ups — wherever constant or known frequency is important to efficient operation of equipment. More than 13 years' of continuous experience covering many thousands of these instruments are your assurance of quality for both commercial and defense applications.

The patented, simplified design used in the J-B-T meter operates on AC or interrupted DC. Each reed is adjusted to respond by resonance to but one frequency. As the current excites the driving coil, the reed "in tune" with the frequency in the coil will respond by vibrating rapidly because of permanent magnet polarization and induced magnetism from the coil. The instrument is adapted to specified operating voltage by a series resistor. To determine frequency, simply read the reed.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

9 REEDS — 400 CY.

Used for measuring frequency of high-cycle power sources, particularly aircraft. Accuracy ±0.3% at reference temperature. Nine reeds, 380-420 cycle range. 100-130 volts; 70 ohms per volt; 1.75 watts power consumption. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

33-F (illustrated). 380-420 cy., 3¼" Metal Case.....**$34.10**

33-FX. 380-420 cy., 3½" Molded Case, MIL-M-6A mtg.....**$34.10**

9 REEDS — 60 CY.

Covers a broad frequency band. Nine reeds, 56-64 cycles, or in half-cycle steps (accuracy ±0.2%) 58-62 cycles. 100-130 volts; 130 ohms per volt; 1 watt power consumption. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

34-F. 56-64 cy., 3¼" Metal Case, 1-cycle steps.....**$27.25**

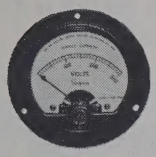
34-FX (illustrated). 56-64 cy., 3½" Molded Case, MIL-M-6A mtg. **$27.25**

34-F-Z. 58-62 cy., 3¼" Metal Case, ½-cycle steps.....**$28.90**

34-FX-Z. 58-62 cy., 3½" Molded Case, MIL-M-6A mtg.....**$28.90**

SIMPSON PANEL METERS

SUN RADIO carries a complete inventory of these popular meters in all types.
Delivery from stock

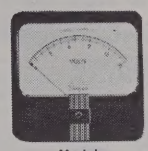


Models 125, 135, 145, 155
½" Round Case—Open face style. Flange diameter, 2¾"; depth overall, 2-5/16; body diameter, 2-11/64"; scale length, 1⅞". Bakelite case.

Models 127, 137, 147, 157
2½" Rectangular Case. Width 2⅜"; height, 2⅜". Mounts in round hole. Body diameter, 2-3/16". Scale length 1⅞". Bakelite case.

Models 25, 35, 45, 55
3½" Round Case—Open Face Style. Flange diameter, 3½"; depth overall, 2¼"; body diameter, 2¾"; scale length, 2-9/16". Bakelite case.

Models 27, 37, 47, 57
3½" Rectangular Case. Width, 3"; height, 3⅛". Mounts in round hole. Body diameter, 2¾". Scale length 2-9/16". Bakelite case.



Models 29, 39, 49, 59
4½" Rectangular Case. Width 4-21/32"; height, 4-13/64" Mounts in round hole. Body diameter 2¾". Scale length 3-29/32". Bakelite case.

D.C. MICROAMMETERS

Range	Type 125-127 Net Each	Type 25-27 Net Each	Type 29 Net Each
0-35	$13.37	$14.55	$16.76
0-50	10.58	11.61	12.79
0-100	10.00	11.02	12.34
0-200	8.37	9.40	10.73
0-500	7.79	8.97	10.14
25-0-25	—	12.24	12.94
50-0-50	—	11.17	12.49
100-0-100	—	9.55	10.88
500-0-500	—	8.67	9.70

D.C. MILLIAMMETERS

Range	Type 125-127 Net Each	Type 25-27 Net Each	Type 29 Net Each
0-1	$7.49	$8.52	$9.55
0-1.5	7.49	8.52	9.55
0-3	7.49	8.52	9.55
0-5	7.49	8.52	9.55
0-10	7.49	8.52	9.55
0-15	7.49	8.52	9.55
0-20	7.49	8.52	9.55
0-25	7.49	8.52	9.55
0-50	7.49	8.52	9.55
0-75	7.49	8.52	9.55
0-100	7.49	8.52	9.55
0-150	7.49	8.52	9.55
0-200	7.49	8.52	9.55
0-250	7.49	8.52	9.55
0-300	7.49	8.52	9.55
0-500	7.49	8.52	9.55
0-750	7.49	8.52	9.55
0-1000	7.49	8.52	9.55

D.C. GALVANOMETERS

Range	Net Each Type 125-127	Net Each Type 25-27	Net Each Type 29
75-0-75	$9.26	$10.28	
500-0-500	7.49	8.52	

D.C. AMMETERS

Range	Type 125-127 Net Each	Type 25-27 Net Each	Type 29 Net Each
0-1	$7.49	$8.52	$9.55
0-1.5	7.49	8.52	9.55
0-2	7.49	8.52	9.55
0-3	7.49	8.52	9.55
0-5	7.49	8.52	9.55
0-10	7.49	8.52	9.55
0-15	7.49	8.52	9.55
0-25	7.49	8.52	9.55
0-30	7.49	8.52	9.55
0-50	7.49	8.52	9.55
0-75	7.49	8.52	9.55
0-100	7.49	8.52	9.55
0-150	7.49	8.52	9.55
0-200	7.49	8.52	9.55
0-250	7.49	8.52	9.55
0-300	7.49	8.52	9.55
0-500	7.49	8.52	9.55
0-750	7.49	8.52	9.55
0-1000	7.49	8.52	9.55
15-0-15	7.49	8.52	9.55
30-0-30	7.49	8.52	9.55
50-0-50	7.49	8.52	9.55

Ammeters are self-contained for ranges up to and including 50 amperes. Higher ranges can be supplied with external shunts and include 6 ft. leads.

D.C. MILLIVOLTMETERS

Range	Type 125-127 Net Each	Type 25-27 Net Each	Type 29 Net Each
0-50	$7.49	$8.52	$9.55
0-100	74.9	8.52	9.55

D.C. VOLTMETERS

Range	Type 125-127 Net Each	Type 25-27 Net Each	Type 29 Net Each
0-13	$7.49	$8.67	$9.55
0-5	7.49	8.67	9.55
0-8	7.49	8.67	9.55
0-10	7.49	8.67	9.55
0-15	7.49	8.67	9.55
0-25	7.49	8.67	9.55
0-30	7.49	8.67	9.55
0-50	7.79	8.67	9.55
0-100	7.79	8.67	9.55
0-150	7.79	8.67	9.55
0-200	7.79	8.67	9.55
0-250	7.79	8.67	9.55
0-300	7.79	8.67	9.55
0-500	7.79	8.67	9.55
0-750	7.79	8.67	9.55
0-1000	11.61	12.49	13.37
0-1500		12.49	13.37
0-2000		12.49	13.37
0-2000		12.49	13.37
0-2500		12.49	13.37
0-3000		12.49	13.37
0-4000		12.49	13.37
0-5000		12.49	13.37

1,000 Volts and higher furnished with external resistors.

A.C. MILLIAMMETERS

Range	Type 155-157 Net Each	Type 55-67 Net Each	Type 59 Net Each
0-10	$7.34	$7.94	$9.70
0-15	7.34	7.94	9.70
0-25	7.34	7.94	9.70
0-50	7.34	7.94	9.70
0-100	7.34	7.94	9.70
0-250	7.34	7.94	9.70
0-500	7.34	7.94	9.70

A.C. AMMETERS

Range	Type 155-157 Net Each	Type 55-67 Net Each	Type 59 Net Each
0-1	$7.34	$7.94	$9.70
0-1.5	7.34	7.94	9.70
0-2	7.34	7.94	9.70
0-3	7.34	7.94	9.70
0-5	7.34	7.94	9.70
0-10	7.34	7.94	9.70
0-15	7.34	7.94	9.70
0-25	7.34	7.94	9.70
0-50	7.34	7.94	9.70

Higher ranges A. C. Ammeters can be supplied with external current transformers and include 2-ft. leads.

A.C. VOLTMETERS

Range	Type 155-157 Net Each	Type 55-67 Net Each	Type 59 Net Each
0-1.5	$7.34	$7.94	$9.55
0-3	7.34	7.94	9.55
0-5	7.34	7.94	9.55
0-10	7.34	7.94	9.55
0-15	7.34	7.94	9.55
0-25	7.34	7.94	9.55
0-50	7.34	7.94	9.55
0-100	7.34	7.94	9.55
0-150	8.67	9.40	10.28
0-250	8.67	9.40	10.28
0-300	8.67	9.40	10.28
0-500	12.49	13.22	14.11
0-750	12.49	13.22	14.11
0-1000	12.49	13.22	14.11

External resistors are furnished on meters having a range of 500 Volts or higher.

A.C. VOLTMETERS—RECTIFIER TYPE

Range	1,000 ohms per Volt Type 45-47 Net Each	1,000 ohms per Volt Type 49 Net Each	2,000 ohms per Volt Type 45-47 Net Each	2,000 ohms per Volt Type 49 Net Each
0-1	$12.49	$13.37	$12.79	$13.96
0-3	12.49	13.37	12.79	13.96
0-5	12.49	13.37	12.79	13.96
0-10	12.49	13.37	12.79	13.96
0-15	12.49	13.37	12.79	13.96
0-50	12.49	13.37	12.79	13.96
0-100	12.49	13.37	12.79	13.96
0-150	12.49	13.37	12.79	13.96
0-300	12.49	13.37	12.79	13.96

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A.C. MILLIAMMETERS—RECTIFIER TYPE

Range	Approx. Res. Ohms	Type 45-47 Net Each	Type 49 Net Each
0-1	600	12.34	13.37
0-2	400	12.34	13.37
0-5	200	12.34	13.37

A.C. MICROAMMETERS—RECTIFIER TYPE

Range	Approx. Res. Ohms	Type 45-47 Net Each	Type 49 Net Each
0-100	3400	$14.85	$16.16
0-200	2400	13.22	14.55
0-300	1800	13.08	14.25
0-500	1200	12.79	13.96

R.F. MILLIAMMETERS

Range	Type 135-137 Net Each	Type 35-37 Net Each	Type 39 Net Each
*0-115		$21.02	$22.93
0-150		12.34	14.25
0-250		12.34	14.25
0-500		12.34	14.25

* 0-100 Linear Scale—50 Divisions.

R.F. AMMETERS—Internal Thermocouple Type

Range	Type 135-137 Net Each	Type 35-37 Net Each	Type 39 Net Each
0-1	$9.11	$10.28	$12.49
0-1.5	9.11	10.28	12.49
0-2	9.11	10.28	12.49
0-2.5	9.11	10.28	12.49
0-3	9.11	10.28	12.49
0-5	9.11	10.28	12.49
0-8	9.11	10.28	12.49
0-10	9.11	10.28	12.49

D.B. METERS—Volume Level Indicators

Zero Power Level—6 M. W. 500 Ohm Line

Range	Type 145-147 Net Each	Type 45-47 Net Each	Type 49 Net Each
General Purpose —10 to + 6 db—5000 ohms	$11.02	$12.05	$13.67
High Speed —10 to + 6 db—5000 ohms	—	12.94	14.55
Low Speed —10 to + 6 db—5000 ohms	—	12.94	14.55

V.U. METERS—Volume Level Indicators

Reference Level—1 M. W.—600 Ohm Line

Range	Type 45-47	Model 142
Not illuminated A or B scale—3300 ohms	$15.58	$16.46
Illuminated A or B scale—3300 ohms	—	19.10

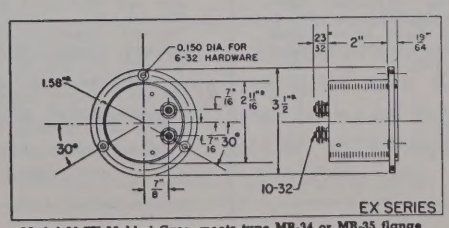
ELAPSED (OR RUNNING) TIME METERS — 60 Cycles

MODEL 31-EX. To record operating time of AC electrical and electronic equipment, this self-starting synchronous instrument registers in 1/10th hour steps to 9,999.9 hours, then automatically re-sets. Shows tenths in red numerals, all others in black. Black molded case per diagram below matches FX, 3½" frequency meters, and fully encloses all parts. J-B-T engineers recommend AC elapsed time meters for superior accuracy, especially where voltage or ambient temperatures vary widely. Popular for tube life, TV equipment, punch presses, conveyors, oil burners, maintenance schedules, etc. Types for 99,999 hours or for 50 cycles are available on special order.

31-EX, 60 cy., 110-125 volts ——— $15.95

MODEL 31-ES, (Square Case). Same as 31-EX except black molded case 3" x 3", per print SK-34; 60 cy., 110-125 volts (not regularly stocked) ——— $17.05

J-B-T
ELAPSED TIME METERS



Model 31-EX Molded Case, meets type MR-34 or MR-35 flange dimensions of MIL-M-6A, also JAN-1-6 and ASA C39.1-1951

3½" SEALED ELAPSED TIME METERS—60 Cycles

MODEL 31-EHXX. Where rugged requirements make a completely sealed elapsed time meter desirable, this glass-to-metal construction, with flat glass front and 3½" diameter separable flange, often is specified. Heavy-duty solder terminals are supplied. Every instrument is checked in a vacuum chamber. Overall dimensions and appearance match the FHXX series sealed frequency meters per drawing on preceding page. See print SK-53 for complete mounting data. The meter registers in 1/10 hour steps to 9,999.9 hours, then automatically re-sets. Tenths indicator is in red, all others in black.

31-EHXX, 60 cy., 110-125 volts ——— $19.75

ELAPSED TIME METERS—Tenths of Minutes

MODEL 31-EXM. 60 cycles, 110-125 volts, reading 0-9,999.9 minutes; for short-run applications or readings at closer intervals than 31-EX. Tenths of minutes in red, minutes in black numerals, otherwise identical with 31-EX ——— $16.25

YOUR KEY TO EXCELLENCE

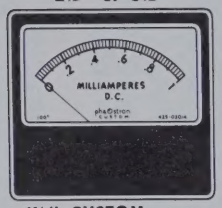
phaostron

PHAOSTRON CUSTOM PANEL INSTRUMENTS

METAL CASED TO INSURE CONTINUED INTEGRITY

All Prices Net. Subject to Change Without Notice.

CUSTOM ROUND
2½" or 3½"



4½" CUSTOM
4½" CUSTOM CHROME

SUPERIOR QUALITY
Phaostron Custom Panel Instruments are engineered to the exacting standards of excellence that identify every Phaostron Product.

ANTI-MAGNETIC SHIELDING
The unbreakable, drawn steel case which encloses Phaostron Panel Instruments, shields them against stray magnetic fields and insures continued accuracy. Unshielded plastic meters have been known to shatter, break or warp and can deviate up to 35% from their initial calibration when exposed to stray magnetic fields.

ACCURACY
2% accuracy is assured (1% in the 6" Custom) because Phaostron Panel Instruments are calibrated to within 1% of the full scale deflection with controlled, certified standards.

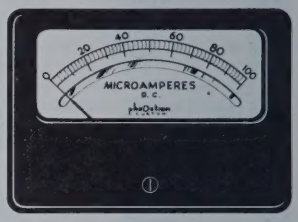
INSULATED ZERO ADJUSTMENTS
Large and easy to use Insulated Zero Adjustments on Phaostron Panel Instruments provide added safety to the instrument as well as the user.

6" CUSTOM PANEL INSTRUMENT
Phaostron's 6" Custom Panel Instrument has scales 4½" to 5" in length. Easy to read from distance of 10 feet by individual with 20-20 vision. MIRROR SCALES increase accuracy of readings. User can duplicate previous viewing position and that of the original calibrator . . . thus overcoming parallax problems of meters without Mirror Scales.

LOW PRICE
Phaostron Custom Panel Instruments offer highest quality at new, low cost. In fact, other commercial meters in plastic cases which do not provide magnetic shielding, cost more than Phaostron Custom Panel Instruments.

PHAOSTRON CUSTOM PANEL INSTRUMENTS ARE AVAILABLE IN ALL NORMAL RANGES
Inquiry on special ranges and requirements is invited.

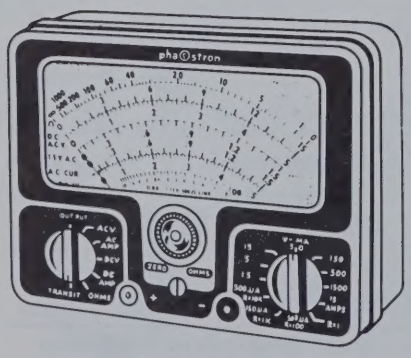
CUSTOM SQUARE
2½" or 3½"



6" CUSTOM

SUGGESTED RETAIL PRICES	2½" Rd. or Sq.	3½" Rd. or Sq.	4½" Custom Non-Illum.	4½" Custom Illum.	4½" Custom Chrome Non-Illum.	4½" Custom Chrome Illum.	6" Custom
Voltmeter DC, 1000 OHMS/VOLT In Standard Ranges	8.35	9.40	10.60	13.10	12.85	15.35	14.85
Voltmeter AC, 1000 OHMS/VOLT Rectifier Type, In Standard Ranges	10.45	11.50	12.70	15.20	14.95	17.45	16.95
Ammeter DC, In Standard Ranges	8.45	9.60	10.60	13.10	12.85	15.35	14.10
Milliameter DC, In Standard Ranges	8.45	9.60	10.60	13.10	12.85	15.35	14.10
Milliameter AC, Rectifier Type Range 0-0.5	10.85	12.15	13.45	15.95	15.70	18.20	19.90
All Other Standard Ranges	10.55	11.70	12.95	15.45	15.20	17.70	16.20
Microammeter DC, Range 500-0-500	8.45	9.60	10.60	13.10	12.85	15.35	14.10
All Other Standard Ranges	Various	Various	Various	Various	Various	Various	Various
Microammeter AC, Rectifier Type Range 0-500	10.85	12.15	13.45	15.95	15.70	18.20	19.90
All Other Standard Ranges	Various	Various	Various	Various	Various	Various	Various
Null Indicator, Ranges A-B-C	17.50	19.50	21.55	24.05	23.80	26.30	Not Now Available

PHAOSTRON "555" METAL-CASED VOM



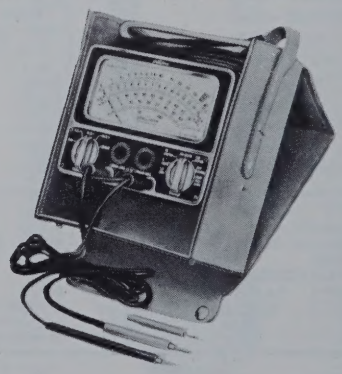
AN INSTRUMENT OF PERMANENT ACCURACY IN A CASE THAT WON'T BREAK

Pocket Size With a 4⅞" Length Scale

The "555" is contained in a shielded, shatterproof, anti-magnetic case which insures continued accuracy and integrity for years. Phaostron "555" incorporates more ranges, including AC current, greater visibility, simplified, functional controls and the greatest value offered to date. Color Coded Scales are Red, Green, Blue, Black. Accuracy 3% DC, 4% AC. Genuine leather carrying case and panel mounting adapter available.

Price Ea. $39.95 complete with probes and batteries
Genuine Leather Carrying Case, $5.95
Panel Mounting Adapter, $1.50

PHAOSTRON "777" METAL-CASED VTVM



The Model "777" VTVM is a completely self-contained, ready-to-use test instrument. Accessories and the HF co-ax cable, DC Probe, AC line cord and instruction book all fit into the Genuine Saddle Leather carrying case. 42 unduplicated ranges. Illuminated dial (5000 hour self-contained lamps). Die cast, chrome finished bezel. Metal Case, unbreakable, ultra compact. Doubly shielded, time proven 200 microamp movement. Permanent accuracy . . . 3% DC, 5% AC. Large, easy to read scales 4⅞" long. Color coded scales: green—ohms; black—AC; red—P. to P. Two zero center scales for FM discriminator alignment. Separate range and function switches. Only two jacks for all measurements. New, high style, easy-to-use chrome bar knobs. Dual purpose handle also serves as AC line cord reel.

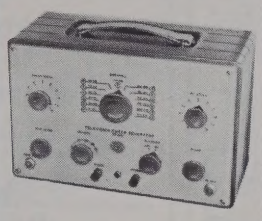
Price Ea. $69.95 complete with Coaxial Cables, DC Probes and Leather Case

RCA TEST EQUIPMENT for SERVICE • INDUSTRY SCHOOLS • LABORATORIES

Dot-Bar Generator WR-36A

Provides pattern of optimum-size rectangular dots for making all convergence adjustments in color receivers. Provides choice of horizontal bars, vertical bars, or cross-hatch pattern for linearity adjustments in color and black-and-white receivers. The number of bars is adjustable: 8 to 15 horizontal bars; 11 to 13 vertical bars. Provides white dots on a black background. The dots are approximately 3/16" x 3/8", as viewed on a 15" tube. Both modulated-rf and video output provided. Rf output continuously tunable over channels 2 to 6, with adjustable amplitude. Positive or negative video output of about 5 volts provided for feeding into video amplifier of color or black-and-white receivers. Choice of internal 60-cps vertical sync, or external sync.

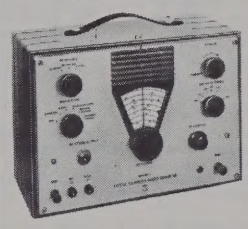
Each Net 147.50



TV Sweep Generator WR-59C

RF: TV Channels 2 to 13-preset, Maximum Sweep Frequency is not less than 12 Mc. IF: 300 Kc to 50 Mc, continuous tuning. Sweep Width: continuously variable for both IF and RF ranges. Output Voltage (rms): 0.1 volt min. Cable Termination: RF positions, 300 ohms balanced; IF position, 100 ohms. Maximum Attenuator Ratio: RF Positions, 20,000 to 1; IF Position, 4000 to 1. Maximum Amplitude Variation of Sweep Envelope (at maximum rated sweep width): All positions less than ± 1 db. Horizontal Sweep for Oscilloscope: Phase Adjustment Range, 160°; Frequency, Power Line.

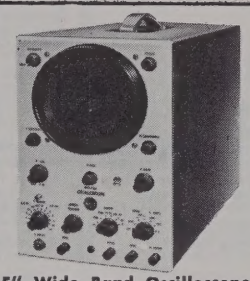
Each Net 274.50



Crystal-Calibrated Marker Generator WR-89A

Variable-Frequency Oscillators: Freq. Ranges (on Fundamentals), 19-55 Mc, 55-260 Mc. Output Voltage: On VFO Ranges, at least 0.1 rms volt; on 4.5 Mc, at least 0.1 rms volt; Total Length of Dial Scale, 144" approx.; Fine Tuning Drive Ratio, 11.6 to 1. RF Attenuator: Range of Attenuation, at least 60 db; Type, Single-piston capacitor. Output Cable Impedance, 90 ohms. 2.5-Mc Crystal Calibrator: Accuracy, ±0.01%; Total Number of Check Points, 96. 4.5-Mc Crystal Oscillator: Accuracy, ±0.02%. Internal Modulation, 4.5 Mc, 4.5 Mc & 600 cps,, 600 cps, 100-150 Kc. External Modulation Frequency, up to at least 10 Mc.

Each Net 242.50



5" Wide Band Oscilloscope WO-78A

Wide Band: Freq. response flat, within —1 db, from 3 cps to 4.5 Mc, with direct sensitivity of 0.1 volt peak-to-peak per inch. (0.035 volts rms per inch).

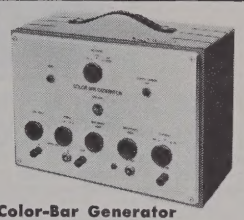
Narrow Band: Freq. response flat, within —3 db, from 3 cps to 500 Kc, with direct sensitivity of 0.01 volt peak-to-peak per inch. (0.0035 rms volt per inch).

Phase characteristics excellent throughout entire freq. range. Rise time 0.1 microsecond or less; overshoot less than 5% for square-wave signal having 0.05 microsecond rise time.

Frequency-compensated vertical attenuator has 14 positions, corresponding to following sensitivities in peak-to-peak volts per inch: Narrow band, 0.01, 0.03, 0.1, 0.3, 1.0, 3 and 10. Wide band, 0.1, 0.3, 1.0, 3, 10, 30, and 100. Full screen deflection is obtained over entire rated frequency ranges of vertical and horizontal amplifiers.

Horizontal sweep has four ranges from 10 cps to 100 Kc with positive and negative internal sync, ac-line sync, and external sync.

Each Net 425.00



Color-Bar Generator WR-61A

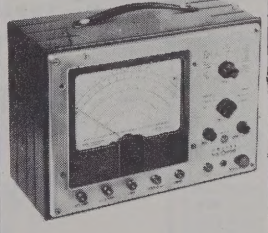
For use in checking overall operation of color receivers and for adjusting color phasing and matrixing. Instrument produces 10 bars of different colors. Color bars are at 30° phase intervals, relating to angles of R-Y, B-Y, I and Q axes, allowing accurate phasing of receivers demodulating on either R-Y, B-Y or on I and Q. Provides crystal-controlled picture-carrier, color-subcarrier and sound-carrier frequencies on channel 3. Color bar and horizontal sync pulse frequencies crystal-controlled. Sound carrier (unmodulate) provided to insure accurate tuning of receiver, to check sound rejection and to check for presence of beat interference between color subcarrier and sound carrier. Push-button control permits temporary elimination of sound carrier for quick sound interference identification. Luminance signals provided at edges of color bars to check "fit" or registration of luminance and chrominance signals. Brightness signal, push-button controlled, produces horizontal area of increased brightness to check for possible shift of hue in bright areas or high lights. Amplitude of color subcarrier adjustable by means of front-panel control which also controls amplitude of burst signal, thus providing check on color lock in receiver.

Each Net 247.50

5" Oscilloscope WO-88A

Frequency Response (minimum values): Vertical Amplifier: From 0 to 100 Kc, flat; At 500 Kc, within —3 db; At 1 Mc, within —10 db; Rise Time, 0.5 microsecond or better. Horizontal Amplifier: (reference freq. 1000 cps) At 10 cps, within —1 db; At 200 Kc, within —6 db. Deflection Sensitivity (minimum limits): Vertical Amplifier: (Volts per inch) With WG-218 Direct Probe and Cable, 0.25 rms, 0.07 p-p; With WG-216B Low-Capacitance Probe, 0.25 rms, 0.7 p-p; Horizontal Amplifier, 0.6 rms, 1.7 p-p; Calibrating Voltage, 0.35 rms, 1.0 p-p. Input Resistance and Capacitance: Vertical Amplifier: With WG-218 Direct Probe and Cable, 1 megohm shunted by 75 *uuf*; With WG-216B Low Capacitance Probe, 10 megohms shunted by 9.5 *uuf*. Horizontal Amplifier: At Input Terminals, 2.2 megohms shunted by 55 *uuf*. Sweep-Circuit Frequency, (4 Ranges) 15 cps to 30 Kc.

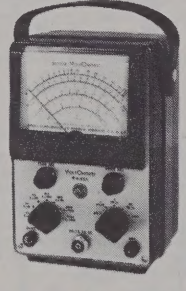
Each Net 149.50



Master Voltohmyst WV-87A

DC Voltmeter: Ranges, 0-1.5, 5, 15, 50, 150, 500, 1500 volts; Input Resistance All Ranges, 11 megohms; Sensitivity on 1.5-V Range, 7.3 megohms/volt; Overall Accuracy, ±3% of full scale. AC Voltmeter: Ranges: RMS Values of Sine Waves, 0-1.5, 5, 15, 50, 150, 500, 1500 volts; Peak-to-Peak Values of Sine Waves and Complex Waves, 0-4, 14, 42, 140, 420, 1400, 4200 volts. Overall Accuracy, ±5% of full scale. Input Resistance and Capacitance (with Direct Probe and Cable WG-218) 1.5, 5, 15, 50, 150, V Ranges: 0.83 meg. shunted by 85 *uuf*. Frequency Response (up to and including the 500-volt range) for Source impedances of approximately 100 ohms or lower), 30 cps to 3 Mc; For Source impedances of approximately 1000 ohms or lower, 30 cps to 500 Kc. Ohmmeter: 0-1000 Megohms in 7 Ranges, Rx1, Rx10, Rx100, Rx1000, Rx10K, Rx100K, Rx1 Meg. Direct-Current Meter: Ranges, Nine: 0-0.5, 1.5, 5, 15, 50, 150, 500 milliamperes; 0-1.5, 15 amperes; Overall accuracy, ±3% of full scale.

Each Net 112.50



Senior Voltohmyst WV-97A

DC Voltmeter: 7 Continuous Ranges, 0-1.5, 5, 15, 50, 150, 500, 1500 volts; Input resistance (including 1 megohm in DC Probe): All Ranges, 11 megohms; Sensitivity for the 1.5-volt Range, 7.3 megohms-per-volt; Overall Accuracy, ±3% of full scale. AC Voltmeter—14 Continuous Ranges: Peak-to-Peak Ranges, 0-4, 14, 42, 140, 420, 1400, 4200 volts; RMS Ranges (for sine waves), 0-1.5, 5, 15, 50, 150, 500, 1500 volts. Input Resistance and Capacitance with WG-218 Direct Probe and Cable: 1.5, 5, 15, 50, 150-volt Ranges: 0.83 megohm shunted by 70 *uuf*; 500-volt Range, 1.3 megohms shunted by 60 *uuf*; 1500-volt Range, 1.5 megohms shunted by 60 *uuf*; Frequency Response (with WG-218 Direct Probe and Cable): 1.5, 5, 15, 50, 150, 500-volt Ranges, flat from 30 cps to 3 Mc; Overall Accuracy, All Ranges, ±5% of full scale. Ohmmeter: Seven Continuous Ranges, 0-1000 megohms; Center Scale Values, 10, 100, 1000, 10,000 ohms; 0.1, 1, 10 megohms.

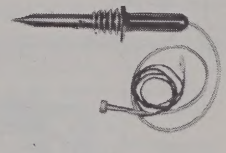
Each Net 67.50

Junior Voltohmyst WV-77A

DC Voltmeter: Ranges, 0-3, 12, 60, 300, 1200 volts; Input Resistance (with DC Probe), All Ranges, 11 megohms. Accuracy: With function selector set on "+ VOLTS", ±3% of full scale; With function selector set on "—VOLTS", ±5% of full scale. AC Voltmeter: Ranges (rms), 0-3, 12, 60, 300, 1200 volts; Accuracy, ±5% of full scale; Input Characteristics: 3, 12, and 60-volt Ranges, 0.2 megohms shunted by 75 *uuf*; 300-volt, 1.0 megohms shunted by 50 *uuf*; 1200-volt, 2.0 megohms shunted by 50 *uuf*; Frequency Response, flat within ±1 db from 30 cps to 3 Mc. Ohmmeter: Ranges, Five, 0-1000 megohms; Center-Scale Values, 10, 1000, 10,000 ohms; 1,0, 10 megohms.

Each Net 47.50

RCA Sun Radio your RCA Distributor



High-Voltage Probes

These high-voltage probes are capable of extending dc voltage range of your meter to 50,000 volts. When used with VoltOhmyst input resistance is increased to 1000 megohms, an important feature when working in high-impedance circuits where loading seriously affects the stability of the circuit under test.

WG-289 (Microphone connectors) 7.15 Each Net

WG-290 (Phone-tip connectors) 7.15 Each Net

WG-206 1090 megohms 2.80 Each Net

WG-207 991 megohms 2.80 Each Net

WG-208 400 megohms 2.80 Each Net

WG-209 480 megohms 2.80 Each Net

WG-210 900 megohms 2.80 Each Net

Because of the urgency to meet printing requirements and a publication date, we have not included in this advance copy of our Catalog No. 56 of Radio and Electronic Supplies, the many additional lines of Test Equipment and Meters which we regularly stock, such as HICKOK, SYLVANIA, SIMPSON, TRIPLETT, RADIO CITY PRODUCTS, BARKER & WILLIAMSON, etc.

PRECISION TEST EQUIPMENT

Model 88 VTVM And Electronic Ohmmeter

A compact, wide range instrument for modern electronic circuit checking. Specially engineered Peak-to-Peak voltage ranges afford a new high in P-P reading accuracy of pulsed wave-forms encountered in Color or Monochrome TV and similar applications.

7 DISTINCTLY SEPARATE FUNCTIONS with 40 SELECTED, WIDE-SPREAD RANGES

★ **6 True-Zero-Center DC Voltage Ranges:** Constant 26⅔ Megohms input resistance. 0 ±1.2 ±6 ±12 ±60 ±300 ±1200 V.

★ **5 Electronic Ohmmeter Ranges.** 0–1000–10,000 ohms. 0–1–100–1000 Megohms.

★ **6 (–) Minus DC Voltage Ranges: 6 (+) Plus DC Voltage Ranges:** (Left-Hand-Zero) constant 13⅓ Megs. input resistance. 0–1.2–6–12–60–300–1200 volts.

★ **6 High Impedance RMS AC Voltage Ranges:** 0–1.2–6–12–60–300–1200 volts.

★ **6 High Impedance Peak-To-Peak AC Voltage Ranges:** 0–3.2–16–32–160–800–3200 volts.

★ **5 Special HF Probe Ranges:** Extends AC RMS reading facility to 300 Mc. 0–1.2–6–12–60–300 volts RMS.

Model 88: Complete with detachable AC line cord, internal ohmmeter battery, 3-way coaxial VTVM probe and detailed operating manual. Size 5⅜ x 7 x 3⅛".

Model 88 ..... Net $68.35

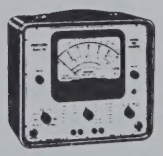
Accessories Available For Model 88

Model TV-8: Super-High Voltage Safety Test Probe with X100 Cartridge for DC voltage ranges to 60 kilovolts.

Model RF-10A: High Frequency Vacuum Tube Probe. For direct measurements up to 300 volts and 300 MC.

Part No. ST-1: Retractable snap-on stand permits convenient 45 degree table mount.

Model TV-8 ..... Net $14.45
Model RF-10A ..... Net $14.12
Model ST-1 ..... Net $.98



Model 98 VTVM And Electronic Ohmmeter

A wide-range, high impedance, electronic test set specifically engineered to provide utmost performance, accuracy and ease of application. The special Peak-to-Peak voltage ranges afford unusually accurate response to pulsed wave-forms encountered in Color and Monochrome TV and similar electronic equipment.

9 DISTINCTLY SEPARATE FUNCTIONS with 55 SELECTED WIDE-SPREAD RANGES

★ **6 True-Zero-Center DC Voltage Ranges.** 26⅔ Megohms input. 0 ±1.2 ±6 ±12 ±60 ±300 ±1200 volts.

★ **6 Electronic Ohmmeter Ranges.** 0–1000–100,000 ohms. 0–1–10–100–1000 Megohms.

★ **6 Minus and 6 Plus DC Voltage Ranges:** (Left-Hand-Zero) Constant 13⅓ Megohms input resistance. 0–1.2–6–12–60–300–1200 volts.

★ **6 High Impedance RMS AC Voltage Ranges:** 0–1.2–6–12–60–300–1200 volts.

★ **6 High Impedance Peak-to-Peak AC Voltage Ranges:** 0–3.2–16–32–160–800–3200 volts.

★ **5 Special High Frequency Probe Ranges:** Extends AC RMS reading facility to 300 Mc. 0–1.2–6–12–60–300 volts RMS. (Requires optional PRECISION RF-10A HF Probe.)

★ **8 DC Current Ranges:** 0–300 microamperes. 0–1.2–6–30–120–600 MA. 0–1.2–12 Amps.

★ **6 Decibel-Output-Meter Ranges:** –20 to +63 DB

★ **One Universal, Coaxial AC-DC VTVM Probe** serves all functions other than high frequency probe ranges.

Model 98-MCP Deluxe: (Illustrated) In custom-styled, hooded cabinet and two-color satin-brushed aluminum panel as described on front cover of this folder. Case dimensions 11½ x 13 x 6⅝ inches. Complete with 3-way VTVM probe and manual.

Model 98 ..... Net $107.31

Model E-200-C Signal-Marker Generator

The famous, general purpose Signal Generator, whose exceptional stability and accuracy have made it number one choice of radio-TV service technicians everywhere. Model E-200-C is an excellent variable frequency Marker Generator for use with the Series E-400 or similar high quality Sweep Signal Generator.

★ **Frequency Coverage:** 88 KC. to 240 MC., 60 MC. on fundamental. 6½" Dial direct reading in 9 bands to 240 MC.

★ **Accuracy—Constancy of Calibration:** 1% accuracy on all bands. Uses *PRECISION* developed **"Unit-Oscillator"** turret construction assuring utmost mechanical stability.

★ **0-1000 Point Vernier Scale,** direct reading to one part in 1000.

★ **The Circuit**—6AU6 in stable E.C.O. circuit, 6U8 sine-wave audio oscillator-modulator, 5Y3 full wave rectifier.

★ **400 Cycle Sine Wave Audio Oscillator**—over 50 volts output.

★ **Dual R.F. Attenuators**—smooth stepless control of R.F. signal.

★ **Shielded Coaxial Output Cable** and (LO-HI) cable connectors.

★ **Four Types of Signals**—"Unmod. R.F.", "400 cycle Mod. R.F." "Externally Mod. R.F.", "400 cycle Audio Output."

★ **Direct Reading Variable Modulation Control**—0-100%—triples signal utility as against obsolete fixed or stepped modulation of only 30 or 40%.

★ **Built-In AVC-AGC Substitution**—Overcomes alignment troubles arising from varying receiver AVC and AGC voltage.

Model E-200-C DeLuxe: (Illustrated) In custom-styled, hooded steel cabinet and two-color satin-brushed aluminum panel as described on front cover of this folder. Case dimensions 11½ x 13 x 6⅝ inches. Complete with tubes, coaxial output cable and illustrated manual "Serving by Signal Substitution."

Model E-200-C ..... Net $85.75

Model E-300 Signal Generator

The Model E-300 has been especially engineered for direct performance testing of: AUDIO AMPLIFIERS, TV VIDEO AMPLIFIERS, CARRIER CURRENT SYSTEMS and other Wide Range Devices.

Sine-Square Wave Analysis, with the Model E-300, streamlines amplifier test procedures and assures more uniformly high standards of apparatus performance, because sine-square wave testing is a most reliable indicator of: FREQUENCY RESPONSE, PHASE SHIFT and AMPLITUDE DISTORTION.

★ **Variable-Frequency Sine-Wave Ranges:** for testing audio amplifiers, low frequency RF amplifiers, etc.: **Continuous Coverage from 20 Cycles to 200 KC in Four Bands.**

★ **Variable Frequency Square-Wave Ranges:** for analyzing audio amplifiers, wide-range amplifiers, etc.: **20 Cycles through 20,000 Cycles in Three Bands.**

★ **Four Fixed, High-Frequency Square Waves:** for analysis of video and other wide-band amplifiers up to 20MC band-width: **50 KC—100 KC—250 KC—500 KC steps.**

★ **Output Characteristics:**
Variable Frequency Ranges: 0-2000 ohms, 0-10 volts RMS, flat within ± 1 db.
Accuracy: ± 2% from 50 cps to 200 KC. ± 1 cps. to 50 cps.
Distortion: Less than 1% from 20 cycles through 200 KC.
20 KC Square-Wave Rise Time: .5 microseconds.
Fixed High Frequency Square-Waves: 0-250 ohms, 0-5 volts P-P
Rise Time: .05 microsecond • **Overshoot:** Negligible

★ **Tube Complement:** 1-5879, 1-6CL6, 1-6J6, 2-6AU6, 1-6BL7, 1-6AH6, 1-6X4.

★ **Separate Output Circuits:** for the variable and fixed frequency ranges. Dual pilot lamps indicate the active output jacks.

★ **Terminated, Low-Loss, Hi Freq. Coaxial Output Cable:** transmits the H.F. square waves to circuits under test, without distortion.

★ **External 'Sync' Terminal Post:** for synchronizing oscillograph horizontal sweep to H.F. square-wave.

★ **Deep-Etched 5¼" Tuning Dial** with NO-glare, engine-turned finish affords utmost visibility and ease of readings.

Model E-300 Deluxe (Illustrated): Hooded steel cabinet and two color brushed aluminum panel as described on front cover of this folder. Dimensions 11½ x 13 x 6⅝". Complete with tubes, output cable and comprehensive instruction manual.

Model E-300 ..... Net $176.40

Model 120 Multi-Range Test Set

The Model 120 provides a combination of features, ranges and functions that have been most wanted in a portable, high sensitivity, multi-range test set:

MORE RANGES • AN EXTRA-LOW RESISTANCE RANGE
AN EXTRA-LOW VOLTAGE RANGE
AN EXTENDED LOW CURRENT RANGE
A LARGER AND EASIER READING SCALE FACE
SIMPLE, POSITIVE RANGE SELECTION
RUGGED, POSITIVE CONTACT JACKS AND PLUGS

★ **8 DC Voltage Ranges:** 20,000 ohms per volt. 0–1.2–3–12–60–300–600–1200–6000 volts.

★ **8 AC Voltage Ranges:** 5,000 ohms per volt. 0–1.2–3–12–60–300–600–1200–6000 volts.

★ **8 AC Output Ranges:** same as AC volt ranges. Built-in 600 volt blocking capacitor.

★ **7 DC Current Ranges:** 0–60–300 Microamperes. 0–1.2–12–120–600 Milliamperes. 0–12 Amperes.

★ **5 Resistance Ranges:** self-contained. 0–200–2000–200,000 ohms. 0–2–20 megohms.

★ **8 Decibel Ranges:** from –20 to +77 DB 0 DB = 1 Milliwatt, 600 ohms.

★ **Extra Large 5¼" Rugged 'PACE' meter:** 40 microamperes sensitivity, 2% accuracy.

Model 120: complete with batteries, test leads and manual. Over-all case dimensions 5⅜ x 7 x 3⅛".

Model 120 ..... Net $39.15

Accessories Available For Model 120

Model TV-2B: Super-High Voltage Safety Test Probe. Complete with multiplier cartridge for direct reading to 30KV.

Model LC-3: Leather Instrument Case. Top-grain cowhide.

Part No. ST-1: Retractable, snap-on stand, permits convenient 45 degree table mount.

Model TV-2B ..... Net $14.45
Model LC-3 ..... Net $9.31
Part No. ST-1 ..... Net $.98

Model ES-550 5" Oscilloscope

The Model ES-550 is the *PRECISION* answer to laboratory, industrial and technician requirements for a rugged, dependable instrument for broad coverage of modern electronic oscillograph applications, INCLUDING COLOR TV. It provides a new and unparalleled standard of high sensitivity with single, overall wide-band frequency response, plus many other special performance features — at most sensible selling price.

★ **Push-Pull, Wide-Band Vertical Amplifier:** 10 MV/inch sensitivity. **Input Characteristics:** 2 Megohms, 22 mmfd. **Response:** One DB from 10 cps. to 3.5 MC–3 DB at 5 MC. **Attenuator:** 3 step freq. compensated plus a continuously variable gain control in cathode follower circuit.

★ **Direct Reading, Peak to Peak Voltage Calibrator**

★ **Vertical Pattern Reversal Switching Facility**

★ **Push-Pull, Wide-Range Horizontal Amplifier:** 100 MV/inch sens. **Input Characteristics:** 2 Megohms, 25 mmfd. **Response:** One DB from 10 cps. to 1.0 MC–3DB at 2 MC. **Attenuator:** 3 step, freq. compensated, plus a continuously variable gain control in cathode follower circuit.

★ **Linear, Multi-vibrator Sweep Circuit:** 10 cycles to 100 KC plus automatically synchronized 30 cycles and 7875 cycles sweep for TV sync-pulse analysis. Amplified sweep retrace blanking.

★ **Amplified Auto-Sync Circuit** active on all internal sweep ranges.

★ **Four Way Sync. Selector Switch** provides for Internal Negative, Internal Positive, External and Line Synchronization.

★ **"Z" Axis Input Terminal** for blanking, timing and marking.

★ **Built-in 60 cps Phasing and Blanking Controls** especially designed for more convenient FM, Monochrome and Color TV alignment and sync pulse analysis.

Model ES-550 Deluxe: (Illustrated) In custom-styled, blue-grey ripple finished steel cabinet; 2 color satin-brushed aluminum panel and contrasting dark blue control knobs. Case Dimensions 8¼ x 14½ x 18½ inches. Complete with all tubes, including 5CP1/A CR tube. Comprehensive Instruction Manual.

Model ES-550 ..... Net $210.70

SUN RADIO stocks the complete line of these famous instruments.

PRECISION TEST EQUIPMENT

Model 10-12 Electronamic Tube Tester

The All-Inclusive Vacuum-Tube PREFORMANCE Test that is Not limited to Mutual Conductance Alone!

Incorporates the time-proven ELECTRONAMIC Tube Testing Circuit, plus an advanced, multiple-element, lever selector system. Affords highest practical order of test results and anti-obsolescence.

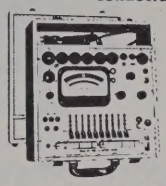
★ **Tests All Tubes Over a Complete Path of Operation,** not just at one arbitrary point or for just one inconclusive characteristic.
★ **RETMA Numbered Lever Element Selection:** Locates every tube element up to 12 prongs regardless of base position.
★ **High Speed, Free-Point Inter-Element Short-Check.**
★ **Individual Push-Button Tube Section Tests** of multi-section tubes
★ **Filament Voltages** from ¾ to 117 volts.
★ **Built-in Stainless-Steel Pin Straighteners.**
★ **High Speed Roller Tube Chart.** ★ **5¼" Full Vision PACE Meter.**
★ **Performance Tests Radio A, B and C Dry Batteries under load.**

Model 10-12-P Deluxe: (Illustrated) 2 color, brushed aluminum panel. Rubbed natural finish, tapered hardwood cabinet, 17¼ x 13¾ x 6¾".

Model 10-54-P: Same as Model 10-12-P PLUS Complete High Sensitivity, wide range AC-DC Circuit Testing facilities.

Model 10-12-P De Luxe.....Net $115.15
Model 10-54-P De Luxe.....Net $146.02
Model 10-54-P Standard.....Net $142.22

Model 612 Cathode Conductance Tube Tester



The popular "600" models offer reliable tube testing facilities at moderate cost. Employs RETMA type emission circuit.

★ **Tests All Modern Tube Types**
★ **Built-in Pin Straighteners**
★ **Fil. Voltages. ¾ to 117 volts.**
★ **Absolute Free-Point** 10 element lever selection.
★ **Dual Short-Check Sensitivity.**
★ **Ballast Unit Tests.**

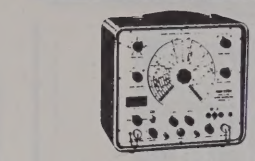
★ **Individual Tests for Each Section** of Multi-Section Tubes.
★ **Noise and Condenser Test pin jacks.** ★ **Hi-Speed Roll Chart.**
★ **Micro-Line Adjustment.** ★ **5¼" PACE Meter, 2% Accuracy.**
★ **Dynamic "Under-Load" Test** for all popular dry batteries.
★ Test Circuits transformer-isolated from power line.

Model 612-P Deluxe: (Illustrated) 2 color, brushed aluminum panel. Rubbed natural finish, hardwood cabinet. 12 x 13 x 6".

Model 612-P Standard: Black and white anodized panel in hardwood case, 12 x 13 x 6"

Model 654-P: Same as 612-P PLUS complete High Sensitivity, wide range AC-DC Circuit Testing facilities.

Model 612-P DeLuxe.....$87.71
Model 612-P Standard.....$82.81



Model E-400 Sweep Signal Generator

Model E-400 has been Application Engineered specifically for modern F.M. and TV oscillographic alignment procedures.

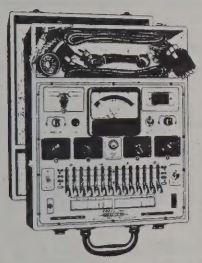
Stressing utmost flexibility and stability, Model E-400 affords an unparalleled standard of performance and value for the efficient TV-FM Service Lab.

★ **Direct Frequency Reading**—3 to 900 MC in 8 bands. Harmonically calibrated from 390 to 900 MC. All VHF Channels (2 thru 13) directly calibrated on the tuning dial.
★ **6½" Etched Aluminum Tuning Dial**—Engine turned finish.
★ **1500 Point Vernier Scale** for close calibration and resetting.
★ **Internal Retrace Blanking Circuit** eliminates dual traces.
★ **Voltage Regulated Oscillators** free of power supply variations.
★ **Narrow and Wide Band Zero-Center Sweep Circuit**—0 to 1 MC and 0 to 15 MC band widths.
★ **Dual Continuous R.F. Attenuators** triple shielded.
★ **Wide Range Phasing Control** for Hor sweep of oscilloscope.
★ **Multiple Crystal Marker-Calibrator** built-in. .02% accuracy, 4.5 MC and 2 MC crystals **furnished as standard equipment.**

Model E-400 Deluxe: (Illustrated) In custom-styled, hooded steel cabinet and two-color satin-brushed aluminum panel as described on front cover of this folder. Case dimensions 11½ x 13 x 6⅜ inches. Complete with tubes, test cables, 2 crystals and comprehensive instruction manual.

Model E-400 .....Net $147.00

Model CR-30 Cathode Ray Tube Tester



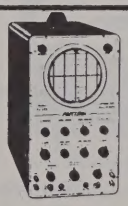
Model CR-30 is a Complete Self-Contained Instrument particularly engineered to provide reliable answer to the question, "Is It The Cathode Ray Tube or Is It The TV Chassis?"

Model CR-30 incorporates a Beam Current Test Circuit which checks electron-gun performance for Proportionate Picture Brightness. Additional test facilities provide for positive check of accelerating anodes and deflection plate elements.

The CR-30 should not be confused with neon lamp units or similar devices of limited technical merit and which do not check all CR tubes or all tube elements.

★ **Tests All Modern CR Tubes**—without removal from carton or TV chassis.
★ **Tests All CR Tube Elements**—Not just a limited few.
★ **Free-Point 14 Lever Element Selector System** for Short-Check, Leakage Tests and Quality Tests, independent of element base pin locations.
★ **Beam Current Test Circuit** checks all CR Tubes with Electron-gun in operation. It is the Electron Beam (and NOT total cathode emission) which traces the pictures or patterns on the face of the CR tube.
★ **Voltage Regulated, Bridge Type VTVM** in super-sensitive, tube quality test circuit.
★ **Meter-Monitored, Line Adjustment** provides close control of test voltages.
★ **Built-in, High Speed, Roller Tube Chart** provides all test settings.

Model CR-30 .....Net $106.82



Model ES-520 5" Oscilloscope

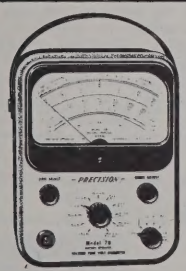
The Model ES-520 was *PRECISION*-engineered in response to demand for a reliable, general purpose 'scope at a price within reach of all to whom initial investment is of extreme importance.

Ideal for general electronic and Radio-TV service-maintenance.

★ **Push-Pull Vertical Drive.** 20 mv/inch deflection sensitivity.
★ **Input Specifications:** 2 Megohms, 22mmfd.
★ **3-Step, Frequency-Compensated, Vertical Input Attenuator.**
★ **Vertical Frequency** response 20 cycles to 500 KC within 2 DB.
★ **Direct Reading Built-in Peak-to-Peak Vertical Voltage Calibrator.**
★ **Excellent Vert. Square Wave Response** from 20 cycles to 50 KC.
★ **Push-Pull Horizontal Drive.** 50 mv/inch deflection sensitivity.
★ **'H' Freq. response** 20 cps to 200 KC within 3 DB (at full gain).
★ **Internal Linear Sweep** 10 cycles to 30 Kc. Negative and positive sweep synchronization.
★ **Built-in 60 Cycle Sine-Sweep Phasing Control.**
★ **"Z" Axis Modulation Input Terminal for blanking, timing, etc.**
★ **All 4 Deflection Plates Directly Accessible at Rear.**
★ **High Contrast Filter-type, Removable, Calibrated Graph-Screen.**

Model ES-520 Deluxe: (Illustrated) In custom-styled, blue-grey ripple finished steel cabinet; 2 color satin-brushed aluminum panel and contrasting dark blue control knobs. Case Dimensions 8¼ x 14½ x 16½ inches. Complete with all tubes, including 5UP1 CR tube. Comprehensive Instruction Manual.

Model ES-520 .....Net $129.85



NEW!

Model 78 Vacuum Tube Volt-Ohmmeter

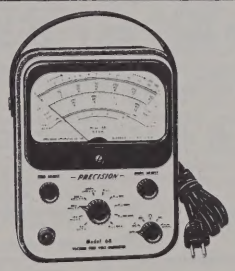
The Model 78 is a wide-range, stabilized, BATTERY-OPERATED electronic test set, especially developed in response to field requests for a modestly priced instrument that will provide reliable VTVM performance with complete freedom from power line connection.

The features and ranges of the Model 78 are ideally suited to application in the fields of radio-telephone communications, electronic control, television, geophysical electronics, etc.

★ **6 True-Zero Center DC Voltage Ranges:** 13⅓ Megohms constant input resistance. 0 ±1.5 ±6 ±30 ±150 ±600 ±1500 volts.
★ **5 Wide-Spread Electronic Ohmmeter Ranges:** 0—1000—100,000 ohms. 0—1—100—1000 Megohms.
★ **5 Extra-High Impedance RMS AC Voltage Ranges:** 0—3—12—60—300—1200 volts. 8 Megs. input resistance; 67 mmfd. input capacity.
★ **High Frequency Probe Facilities** available through use of accessory crystal probe, Model RF-12.
★ **One Coaxial, 3-Way VTVM Probe** serves all functions except that of High Frequency Probe RF-12 above.
★ **Complete, Self-Contained, Battery Operation:** Special circuit engineering and optimum operating parameters provide a new high in long-lived battery performance and instrument stability.
★ **Built-In Battery Compartment:** All batteries conveniently replaced via removable cover plate.
★ **Battery Requirements:** Uses Standardly Available Commercial Batteries: One No. 477—67½ volts*, Two No. 950—1½ volts* One No. 964—1½ volts* (*Eveready or equal).
★ **5¼" Wide-Angle PACE Meter:** 100 microamperes sensitivity, ±2% accuracy.
★ **1% Multipliers and Shunts:** wire- and deposited-film types.
★ **Deep-Etched, Heavy-Gauge, Satin-Brushed Aluminum Panel.**

Model 78: In rugged, blue-grey ripple-finished steel cabinet. Dimensions: 5⅞"x7¾"x3½". Complete with tubes, one set of batteries and detailed instruction manual.

Model 78.....$56.35 Net Ea.



NEW!

Model 68 Vacuum Tube Volt-Ohmmeter

The Model 68 is a wide range, AC OPERATED, general purpose electronic multi-range tester, especially developed in response to field requests for a modestly priced instrument completely FACTORY-engineered, FACTORY-wired and FACTORY-calibrated.

The Model 68 conforms to every *PRECISION* standard of quality, workmanship and value. Recommended for general electronic service-maintenance, in the shop and field.

★ **5 (+) Plus DC Voltage Ranges:** (Left-Hand Zero) 13⅓ Megohms constant input resistance. 0—3—12—60—300—1200 volts.
★ **5 (—) Minus DC Voltage Ranges:** (Left-Hand Zero) 13⅓ Megohms constant input resistance. 0—3—12—60—300—1200 volts.
★ **5 Wide-Spread Resistance Ranges:** 0—1000—100,000 ohms. 0—1—100—1000 Megohms.
★ **5 High Impedance RMS AC Voltage Ranges:** 0—3—12—60—300—1200 volts.
★ **5 Peak-to-Peak Voltage Ranges:** 0—8—32—160—800—3200 volts.
★ **5 Stabilized Zero-Center Reference Ranges** for FM discriminator balancing, voltage polarity determinations, etc.
★ **High Frequency Probe Facilities** available through use of accessory crystal probe Model RF-12.
★ **One Coaxial, 3-Way VTVM Probe** serves all functions except that of High Frequency Probe RF-12 above.
★ **5¼" Wide-Angle PACE Meter:** 400 microamperes sensitivity, ±2% accuracy.
★ **1% Multipliers and Shunts:** Wire and deposited-film types.
★ **Deep-Etched, Heavy-Gauge, Satin-Brushed Aluminum Panel.**

Model 68: In rugged, blue-grey ripple-finished steel cabinet, size: 5⅞"x7¾"x3½". Complete with tubes, internal ohmmeter battery and detailed instruction manual.

Model 68.....$48.51 Net Ea.

Accessories Available for MODEL 68 and 78

Model TV-4: Super-High Voltage Safety Test Probe with x100 cartridge for ranges to 60 kilovolts. For use with Models 68 and 78. (May also be used with Models EV-20 and EV-10A.)

$14.15 Net Ea.

Model RF-12: High Frequency Crystal Probe complete with low capacity x10 multiplier head. For use with both Models 68 and 78. Frequency range to 250 Mc. **$10.73 Net Ea.**

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Model 630
Volt-Ohm-Milliammeter

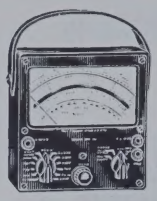
Most popular in the complete Triplett V-O-M line.

Accuracy 3% on DC 3V to 1200V on microamperes, milliamperes and amperes. 4% on AC 3V to 1200V.

Ranges: DC Volts: 0-3-12-60-300-1200-6000 at 20,000 Ohms/volt; AC Volts: 0-3-12-60-300-1200-6000 at 5,000 Ohms/volt; DB —30 to +70 in seven ranges: DC Microamperes: 0-60 at 250 MV; DC Milliamperes: 0-1.2-12-120 at 250 MV; DC Amperes: 0-12 at 250 MV; Ohms: 0-1000-10,000 (4.4 44 at center scale); Megohms: 0-1-100 (4,400-440,000 center scale). Ideal for all testing, including TV. Accurate 1% resistors. One switch for easier, faster settings, fully enclosed. Direct connections —no cabling —eliminates shorts and leakage. Case, molded, fully insulated, 3 7/32" X 5 ½" X 7 ½". Wt. approx. 4 lbs.

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

Model 630 **Net $38.71**



Model 625-NA
Volt-Ohm-Milliammeter

Ranges DC Volts: 0-1.25-5-25-125-500-2500 at 20,000 o/v. 0-2.5-10-50-250-1000-5000 at 10,000 o/v; AC Volts: 0-2.5-10-50-250-1000-5000 at 10,000 o/v; DC Mics: 0-50 at 250 MV; DC Ma: 0-1-10-100-1000 at 250 MV; DC Amps: 0-10 at 250 MV; Ohms: 0-2000-200,000 (12-1200 at center scale); Megohms: 0-40 (240,000 Ohms at center scale). DB: —30 to +69 in seven ranges. Output: Condenser in series with AC Volt ranges. Widest range tester of its type.

Mirror scale and knife-edge pointer for precise reading — eliminate parallax. Accurate 1% resistors. Big 6" meter — Red-Dot Lifetime Guarantee. Case, molded, insulated, 2 ½" X 5 ½" X 6" Wt. 3 lbs.

Complete with leads, alligator clips, batteries and instruction manual.

Model 625-NA **Net $48.51**

Model 650
Vacuum Tube Voltmeter

Ranges: DC Volts: 0-1-5-10-50-100-500-1000; AC-RF Volts: 0-1-5-10-50-100-500; Peak to Peak Volts: 0-2.8-11-28-140-280-700 (Read on 0-1400 scale) Peak to Peak value of sine wave to 1400V; Ohms: 0-1000-10,000-100,000; Megohms: 0-1-100-1000; Decibels tabled in instruction book. Galvanometer Center mark "—0—" for discriminator alignment on all DCV ranges —5 to +5 volts on 0-1 DCV range. Frequency Range—AC-RF: 15 cps to 150 MC at 30% Peak to Peak ACV and RF measurements made with one probe. Complete frequency coverage from 20 cps to well over 110 MC with one probe. One volt full scale reading on both AC and DC. High input impedance 11 megohms on DC for accurate measurements without loading the circuit under test. Wt. 5 lbs. Accessories supplied: 1 each AC Power cord, DC Volt-Ohm lead (shielded); AC-RF Volt shielded tube probe; 2 alligator clips for probe tips.

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

Model 650 **Net $87.71**

Model 310
Mighty Mite Miniature Volt-Ohm-Milliammeter

The only complete Miniature V-O-M with 20,000 ohms per volt.

Ranges: DC Volts: 0-3-12-60-300-1200 at 20,000 ohms/volt; AC Volts: 0-3-12-60-300-1200 at 5,000 ohms/volt; DC Microamperes: 0-600 at 250 MV; DC Milliamperes: 0-6-60-600 at 250 MV; Ohms: 0-20,000-200,000 (200-2000 at center scale); Megohms: 0-2-20 (20,000-200,000 Ohms at center scale). Self-shielded bar ring instrument movement for checking in strong magnetic fields. Strong plastic meter window. New Probe-A-Test feature by fitting interchangeable test prod tip into top of tester, making it the common probe. Selector switch for faster settings - the only miniature V-O-M with selector switch for quick, fool-proof selection of all ranges.

Printed circuit. Banana-type jacks for positive connections and long life. Case, fully insulated, 1 3/16" X 2 3/4" X 4 ¼". Wt. approx. 14 oz. complete with battery.

Complete with leads, batteries and instruction manual.

Model 310 **Net $28.91**

Model 630-A
Volt-Ohm-Milliammeter

Accuracy: 1½% on DC 3V to 1200V; 2½% on AC 3V to 1200V.

Ranges: DC Volts: 0-3-12-60-300-1200-6000 at 20,000 ohms/volt; AC volts: 0-3-12-60-300-1200-6000 at 5,000 ohms/volt; DB: —30 to +70 in seven ranges; DC Microamperes: 0-60 at 250 MV; DC Milliamperes: 0-1.2-12-120 at 250 MV; DC Amperes: 0-12 at 250 MV; Ohms: 0-1000-10,000 (4.4-44 at center scale); Megohms: 0-1-100 (4,400, 440,000 center scale). Laboratory-type VOM with mirrored scales for greater accuracy. ½% resistors. One switch for easier, faster settings, fully enclosed.

Direct connections - no cabling - eliminates shorts and leakage. Case, molded, 3 7/32" X 5 ½" X 7 ½". Wt. 4 lbs.

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

Model 630-A **Net $48.51**

Model 666-R
Pocket Volt-Ohm-Milliammeter

Small, compact, handy pocket-size.

Ranges: DC Volts: 0-10-50-250-1000-5000 at 1000 o/v; AC Volts: 0-10-50-250-1000-5000 at 1000 o/v; DC Ma: 0-10-100 at 250 MV; DC Amps: 0-1 at 250 MV; Ohms: 0-3000-300,000 (20-2000 at center scale); Megohms: 0-3 (20,000 Ohms center scale). One switch — large knob — correct settings easier and faster. Self-contained to 3 megohms. Switch and resistor construction prevent shorts. Full 3" meter - RED-DOT Lifetime Guarantee. Accurate 1% resistors. Leads 48" long. Test prods with removable alligator clips at one end. Banana type plugs at other end for connecting to jacks, give low contact resistance at jacks and hold firmly. Wt. 1½ lbs., complete with batteries.

Complete with leads, alligator clips, batteries and instruction manual.

Model 666-R **Net $25.97**

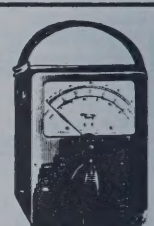
Model 631
Combination VOM-VTVM

Two-for-One combination saves you money. No need to invest in two separate testers when one will do your work at only half the price.

Ranges: VOM: DC VOLTS: 0-3-12-60-300-1200 at 20,000 o/v; AC Volts: 0-3-12-60-300-1200 at 5,000 o/v; DC Microamperes: 0-60 at 250 MV; DC Milliamperes: 0-1.2-12-120-1200 at 250 MV; DC Amperes: 0-12 at 250 MV; DB: —30 to +56 in six ranges; Ohms: 0-1500-15,000 (6.8-68 center scale. First division is 0.1 ohm), Megohms: 0-1.5-150 (6,800-680,000 ohms center scale), VTVM: DC Volts: 0-1.2-6-30-120 (First division is 0.02 volt). One switch selects all ranges and minimizes chance of incorrect settings and burnouts. VTVM stability assured by battery-operated design. Not subject to line voltage fluctuations. Case, heavy molded (¼" thick) completely insulated, 3 7/32" X 5 ½ X 7 ½". Wt approx. 4 lbs.

Complete with leads, rubber feet, alligator clips, batteries and instruction manual.

Model 631 **Net $58.31**



Model 630-T
Volt-Ohm-Milliammeter

Specially designed for telephone and industrial maintenance

Ranges: DC (Accuracy 2%) Volts: 0-0.3-3-12-60-300-600 at 20,000 o/v; Ma: 0-.06-1.2-12-120 at 150 MV; AC (Accuracy 5%) Volts: 0-3-12-60-300-600 at 3,000 o/v; Ohms: 0-1K-10K-100K-1 Meg-10 Meg. Fused circuits protect resistors and the meter in ohms ranges.

Designed for work inside on panel, checking circuits on pole, etc. Special straps supplied to hold instrument in easy reading position while supported from lineman's neck, leaving both hands free. Special banana jack connectors to eliminate all shock hazard. Case, molded, completely insulated to protect instrument from ground, 3 7/32" X 5 ½" X 7½". Wt. 4 lbs.

Model 630-T **Net $51.45**

Model 630-NA
Volt-Ohm-Milliammeter

New and the finest Volt-Ohm-Milliammeter.

Ranges: DC Volts: 0-0.240-0.6-3-12-60-300-1200-6000 at 10,000 o/v, 0-0.120-0.3-1.5-6-30-150-600-3000 at 20,000 o/v; AC Volts: 0-3-12-60-300-1200-6000 at 5,000 o/v, 0-1.5-6-30-150-600-3000 at 10,000 o/v; DB: —30 to +70 in 12 ranges; DC Microamperes: 0-120 to 240 MV, 0-60-600 at 120 MV; DC Milliamperes: 0-1.2-12-120-1200 at 240 MV, 0-6-60-600 at 120 MV; DC Amperes: 0-12 at 240 MV, 0-6 at 120 MV; Ohms: 0-1K-10K-100K (4.4-44-440 at center scale); Megohms: 0-1-10-100 (4400-44,000 440,000 Ohms center scale). Meter protection against overloads. High accuracy on same scale for DC and AC; DC 1 ½% to 1200V 3% to 6000V; AC 3% to 1200V, 4% to 6000V. 70 Ranges - nearly double the conventional tester. Frequency compensation. Temperature compensation. Pressure contact switching. Case, 3 5/16" X 5½" X 7 ½". Wt. Approx. 4 lbs.

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

Model 630-NA **Net $68.11**

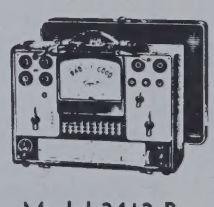
Model 666-HH
Pocket Volt-Ohm-Milliammeter

Complete miniature laboratory for DC and AC Voltage, Direct Current and Resistance analyses.

Ranges: DC Volts: 0-10-50-250-1000-5000 at 1000 o/v; AC Volts: 0-10-50-250-1000-5000 at 1000 o/v; DC Ma: 0-10-100-500 at 250 MV; Ohms: 0-2000-400,000 (12-2400 at center scale.) Greater scale readability on 3" RED-DOT Lifetime Guaranteed instrument. 3-color scale. Simplified switching provides greater ease in changing ranges. Lower jack resistance and trouble-free plug-in connections by use of banana type jacks. Greater stability on voltage ranges by use of special resistors throughout and on current ranges by use of 250 MV instrument. Case, molded, completely insulated, 2 9/16" X 3 1/16" X 5 ⅞". Wt. 1½ lbs.

Complete with leads, alligator clips, batteries and instruction manual.

Model 666-HH **Net $24.01**



Model 3413-B
Tube Tester

For faster, flexible tube testing, 3413-B gives you complete flexibility and the accuracy needed for testing all tubes, including TV and the new series filament tubes. Improved lever switching for complete control of each tube element. The only commercial tester to get at each tube pin and make an open and short check. Greater meter sensitivity for tubes with low cathode current. TV picture tube test by means of the BV adapter, without removing the tube from the receiver.

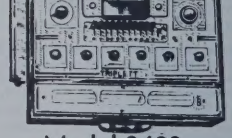
Speed-roll chart with test settings for over 700 tubes at the flick of a finger.

Special circuit feature accurately compensates to provide correct voltage on each tube test. Short test for each element by a single flip of the switch. Big 6" meter, direct reading "BAD — ? — GOOD" dial. Case, 6 1/8" X 11 1/32" X 15 11/32". Wt. 20 lbs.

Model 3413-B **Net $77.91**

FOR TV PICTURE TUBE TESTS

BV Adapter **Net $4.41**



Model 3423
Mutual Conductance Tube Tester

Proportional mutual conductance tube testing by a new patented circuit which provides a fast accurate means of checking all conventional type tubes as well as 7 and 8 pin subminiature. Due to voltage available selenium rectifiers, crystal diodes and transistors may also be checked. Employs actual signal oscillator (4KC) to produce a good signal; does not depend upon line frequency source. Six plate voltages (including 0-10 ACV variable) essential for best mutual conductance correlation measurements (0-10, 10, 30, 70, 100 and 250 available). Direct leakage measurements on meter from 0 to 10 megohms between any one element and all other elements. Tests all types of receiving tubes, low power transmitting tubes, rectifiers, thyratrons, voltage regulator tubes, and pilot lamps. Large three-window speed-roll chart for quick location of over 1100 tube listings. Easily removable for addition of new tube listings or exchange of roll charts. Case, wood, gray leatherette covered, 14 3/4" X 18 25/32" X 6 13/32".

Model 3423 **Net $195.51**

FOR TV PICTURE TUBE TESTS

BV Adapter **Net $4.41**

TRIPLETT

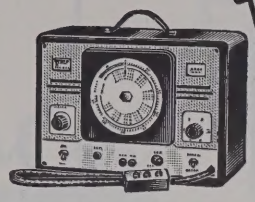
Model 3432-A
Signal Generator

Ranges: Band A, 160-370KC; Band B, 360-735 KC; Band C, 715-1875 KC; BAND D, 1825-4950 KC; Band E, 4.85-13 MC, Band F, 12.5-35 MC; Band G, 34-110 MC; Band G Harmonics, 68-220 MC.

Complete frequency coverage from 160 KC to 110 MC (220 MC using harmonics) with no skips in frequency for AM-FM radio, monochrome and color TV servicing. RF circuits are double shielded with copper steel shields. Large easily read etched aluminum dial. Cathode follower output provides good stability by acting as a buffer to the oscillator. Step type attenuator. Jacks provided for either internal modulation or audio output. Both controlled by audio control to provide variable modulation or A.F. output.

Smooth planetary drive dial for ease and accuracy in adjustment. On-Off indicated by pilot light. Seven directly calibrated 160° scales, quickly readable at a glance. Case, metal, 6¼" X 11 1/32" X 15 11/32". Wt. 12 lbs.

Model 3432-A ..... Net $97.51



Model 3436
UHF Marker Generator

UHF Continously variable through channels 14-83 on linear scale 13" long - all fundamental readings (470-900 MC.) Accuracy ½% to 1%. Large dial with uniform frequency graduations - no crowding at end of dial. Dial marked in both frequency and channels.

Hand drawn for extreme accuracy. RF output maximum .5 volt. Variation in output over the range of frequencies is minimized.

Output impedance 150 and 300 ohms. Variable-link type attenuator. Triple shielding and excellent stability through special construction. Voltage regulated power supply.

Adjustable modulation of RF signal at approximately 1000 cycles. 0-20 audio output available at panel. Can be used as horizontal bar generator. Case, heavy steel, 8 ¼" X 11 1/32" X 15 11/32". Wt. 24 lbs.

Model 3436 ..... Net $166.11

Model 3439
Color Bar Generator

Ideal for checking the overall performance of color TV receivers, including color phasing adjustments, color synchronizing and color matrixing. It produces with crystal controlled accuracy the standard bars of colors corresponding to R-Y, B-Y, I and Q axis.

Crystal controlled RF output. A built-in VTVM circuit with meter on the panel provides for quick and easy checking of sync., subcarrier and modulation amplitudes. Unit completely self-contained - no extra accessories or equipment are needed. Easy to set up, with RF output direct. Sound carrier (unmodulated) insures precise tuning of the receiver; and permits checking sound rejection and presence of beat interference between the color subcarrier and the sound carrier. Brightness modulation is available to check for possible shift of hue in the bright areas or highlights. The amplitude of the subcarrier is adjustable; for checking the color sync lock action in the receiver. Video signals of positive or negative polarity are provided for low impedance (75 ohms) and high impedance (5000 ohms) video circuits. Case metal, 6¼" × 11' 1/32" X 15 11/32". Wt. 16 lbs.

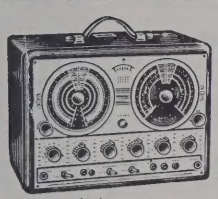
Model 3439 ..... Net $244.51

Model 3438
Dot Generator

Checks video, RF, IF, sync and color circuits with modulated RF (channels 2 to 6) and IF (20 to 55 MC) outputs available. Horizontal sync pulses (15,750 cycles) and vertical sync pulses (60 cycles) available for checking sync circuits. Horizontal bars (480 cycles to 600 cycles) and vertical bars (crystal controlled at 189 KC) for checking linearity on b/w and color sets. Cross hatch used to check overall linearity with 11 vertical bars and eight horizontal bars. A square block will be produced for the Cross Hatch pattern. White dots of proper size used to check convergence of color TV sets. Crystal controlled accuracy for varying colors through approximately 330° of the color spectrum with any combination of the function selector. Unit will produce red, blue and green color spectrum and colors corresponding to phases of R-Y, B-Y, I and Q axis. Can be used for signal tracing completely through either b/w or color TV sets.

Completely self-contained. Case, metal with baked enamel suede finish, 6¼" X 11 1/32" X 15 11/32". Power supply 115V, 50-60 cycles, AC, 55 watts. Wt. approx. 16 lbs.

Model 3438 ..... Net $224.91



Model 3434-A
Sweep Signal Generator

Usable for Color TV. Marker covers 3.5-4.9 MC; 19.5-29.3 MC; 29-48.6 MC on fundamentals with no skips in frequency. Crystals from 1 KC to 20 MC on Fundamentals. Can be used to produce Harmonics to 243 MC.

Absorption marker may be had on any fundamental frequency. Modulation 600 cycle on both Crystal and Marker frequencies.

Modulation has a sharp cut-off wave form to produce horizontal bars for vertical linearity alignment. Unit also produces color bars (red, blue and green) with a 3.56 crystal (not supplied). Output 1 to 1.5 volts. Regulated power supply for greater Oscillator stability. Provisions for external Crystals (Plug-in Crystals not supplied). Case, metal, 8½" × 11 1/32" X 15-11/32". Wt. 23 lbs.

Model 3434-A ..... Net $234.71

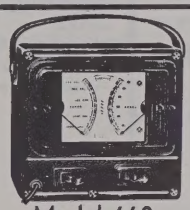
Model 3441
5" Oscilloscope

A popular 5" Oscilloscope for Radio, TV (b/w and color) and Industrial testing. Ideal for Color TV — 10 MV sensitivity. Wide frequency response for color TV servicing. 4.5 MC band width. Calibrating meter reads 0-1000 Peak to Peak in 8 ranges. Provision for changing polarity — wave form shows in conventional manner. Vertical amplifier—response usable to 9 MC. Two frequency response ranges with four range compensated attenuator. Horizontal amplifier - Frequency range: Flat within 20% from 20 cycles to 150 KC. Deflection sensitivity — .15 RMS Volts/Inch. Push-Pull Vertical and Horizontal amplifiers. Input Impedance - Vertical Amplifier: 2 Megohms in parallel with 45 MMF at input terminals. Saw tooth output supplies a saw tooth form from 10 to 60,000 cycles.

Output variable 0-70 volts peak to peak.

Return trace line if desired. Provisions for external blanking. Case, metal, 11 1/32" X 15 11/32" X 16". Wt. 38 lbs. Accessories: One co-axial lead for Vertical Input.

Model 3441 ..... Net $244.51



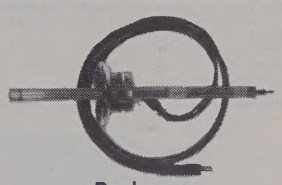
Model 660
Load Chek

Ranges: Watts — AC or DC: 0-500 (50 division scale), 0-1000 (50 division scale); Volts--AC or DC; 0-150 (65 division scale). A time saver. Helps prevent repair comebacks. Quick way to locate hidden shorts and overloaded circuits. Double meter indication provides simultaneous check of line voltage and power. Shows faulty power line wiring as well as proper functioning of the appliance under test. Easy operation by means of only one toggle switch to change Watts range. Double Wattage range permits servicing a 5-tube radio to the largest television set. Wide meter window makes for easy reading of both Wattmeter and Voltmeter scales even under poorly lighted locations. Case, molded, insulated, 2½" × 5½" × 6". Wt. 2 lbs.

Model 660 ..... Net $28.91

MODEL 661—same as 660 but with Watt range of 150-300-

Model 661 ..... Net $28.91



Probes for
High Voltage Testing

The completely insulated polystyrene test probe with guardtype handle contains the voltage dropping resistors, high stability hi-voltage insulating compound. Probe is 11¾" long, with 48" hi-voltage wire lead with banana plug at tester end. For measuring high voltage employed in television receivers and other applications, external probes are available.

MODELS 630, 630-A AND 631

		Net Ea
Part T-79-68	0-12,000 D. C. Volts	$14.21
Part T-79-69	0-12,000 A. C. Volts	14.21
Part T-79-70	0-30,000 D. C. Volts	14.21
Part T-79-71	0-30,000 A. C. Volts	14.21

MODEL 625-NA

		Net Ea
Part T-79-83	0-10,000 D. C. Volts	$14.21
Part T-79-74	0-10,000 A. C. Volts	14.21
Part T-79-130	0-25,000 D. C. Volts	14.21
Part T-79-75	0-25,000 A. C. Volts	14.21

REPLACEMENT LEADS

LEADS for Models 630, 630-A, 666-HH, 666-R and 625-NA. Plastic (T-79-49) and Rubber (T-79-127). Net $2.15

Model 369

Model 369—Handsome black cowhide leather carrying case for Model 310. Has adequate space for accessories. Trouser belt slips through loop on back of the case for out-of-the-way carrying

Model 369 ..... Net $2.84

Model 639

(For Testers 630, 630-A, 630-NA, 631)

Model 639 black cowhide leather carrying case has adequate space for tester, instructions and accessories. There is ample space in the case to allow for the tester stand. Provided with a strong leather strap handle.

Model 639 ..... Net $8.33

Model 639-N

(For Testers 630, 630-A, 630-NA, 631, 630-T)

639-N black neolite carrying case completely closed for carrying. Three snap fasteners keep the cover securely fastened when the tester is not in use. Center-cover flaps snap back allowing full view of scales and permitting complete access to instrument without removal from case. This is a very important feature to the serviceman. This handsome case has a roomy compartment for accessories. Tester stand is included at no extra cost.

Model 639-N (Case Only) Net $8.33

Model 639-P black leather case lined with ⅜" sponge rubber. For Models 630 630-A, 630-NA and 631

Net $13.23

CORNELL-DUBILIER
"Handicheck" Capacitor Checker Model BF-90

The C-D Handicheck is an instrument which has been designed for the purpose of providing the TV and Radio serviceman with a means whereby the condition of capacitors may be determined both rapidly and conveniently **without removing them from a circuit.** Capacitors which are OPEN circuited, SHORT circuited or have an INTERMITTENT condition may be located.

Capacitors from 30 mmfd. to 2000 mfd. may be checked for open circuited, short circuited or intermittent conditions without removing them from the circuit even though they be connected in parallel with a resistance as low as 50 ohms.

Capacitors from 0.1 mfd. to 2000 mfd. may be checked for short circuited or intermittent circuit conditions even though they be connected in parallel with resistances as low as 1 ohm.

A 60 cycle circuit incorporating an electron-ray indicator tube is employed to detect short circuited or intermittent short circuited conditions.

An oscillator circuit operating at a frequency of approximately 20 megacycles and incorporating an electron-ray indicator tube is employed to detect open circuit or intermittent open circuit conditions.

PORTABLE — for easy carrying with recessed handle for convenient stacking.

SIZE — 5½" Deep x 7" High x 10" Wide.

WEIGHT — 6 lbs., 12 ozs.

MODEL BF-90
"HANDICHECK"
NET PRICE Complete with tubes
110-125 Volt A.C. 50-60 Cycles

$34.50 Net Ea.

CORNELL-DUBILIER
Flyback Transformer and Yoke Checker Model BF-80

The Cornell-Dubilier Flyback Transformer and Yoke Checker provides the television serviceman with a rapid and convenient means of locating defects in flyback transformers and yokes. This instrument is extremely sensitive and will immediately detect a **single** short circuited turn in the windings of either a flyback transformer or yoke. Without the use of such an instrument as the Cornell-Dubilier Flyback Transformer and Yoke Checker, it is most difficult to detect such a defect. Resistance measurements are not effective because a short circuited turn causes only a minute change in resistance, and usually the resistance of a good transformer or yoke is unknown and subject to a wide tolerance. A short circuited turn on the other hand, causes a major change in inductance, which this instrument quickly detects.

In addition to detecting short circuited turns in magnetic windings, this instrument is designed to also provide a means for quickly detecting OPEN CIRCUITED conditions in transformers, yokes, coil and switches, or short circuited elements in vacuum tubes.

DESCRIPTION AND SPECIFICATIONS

The Model BF-80 employs an oscillator circuit incorporating a 6V6 vacuum tube. The oscillator frequency is approximately 1000 cycles modulated at 60 cycles.

The built-in power supply operates on 110 to 125 volts, 50 to 60 cycles A.C.

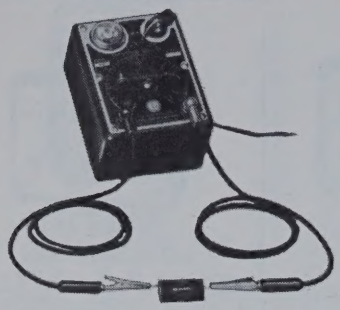
The indicating device is a 4½" Microammeter with a 50 microampere full scale sensitivity. The meter scale is divided into six colored sections indicating "GOOD," "BAD," and "REPLACE" for short and continuity checks. In addition there is a numbered scale which may be employed for quantitative readings.

The C-D Model BF-80 is housed in a portable metal carrying case with an attractive hammered enamel finish. The carrying handle is recessed so that similar instruments may more readily be stacked one upon another. Dimensions are 5½" deep, 7" high, 10" wide. Weight is 8½ lbs. The instrument comes complete with line cord and test leads.

MODEL BF-80
FLYBACK TRANSFORMER and YOKE CHECKER
NET PRICE Complete

$46.45 Net Ea.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE



CORNELL-DUBILIER

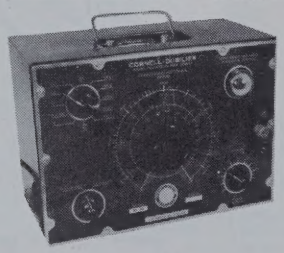
CAPACITOR BRIDGE

Features of Model BN Capacitor Bridge

1. Measures Capacity—Accurately measures capacity of paper, mica, electrolytic and air capacitors from .00001 mfd. to 50 mfds.
2. Indicates Power Factor—Power factor of electrolytic capacitor indicated by means of visual eye detector tube.
3. Detects Defective Capacitors—Detects open and short circuits, high and low capacity, and high power factor.
4. Checks Circuit Continuity—May be used as continuity meter. A handy instrument for checking circuits, coils, transformers and many other uses. For operation on 110 volts, 60 cycles.
5. Employs Wien Bridge—Employs Wien Bridge circuit for all measurements. Accuracy independent of line voltage variations.
6. Visual Eye Bridge Balance—Dual type visual bridge balance for accurate measurements facilitates quick tests on service jobs.
7. Direct Reading Scale—Direct reading ranges with all scale markings directly in microfarads. Clear reading dial scale. All capacity calibrations marked on panel. No charts or multipliers required.
8. Self Contained—The Capacitor Bridge is complete in itself and requires no headphones, standards, external meters, etc.
9. Extremely Compact—The unusually small size of this bridge makes it particularly handy for portable use—3⅜" x 5" x 3" weight 2 pounds.
10. Attractive—Supplied in attractive walnut Bakelite case complete with detachable test leads and useful instruction booklet.

MODEL BN CAPACITOR BRIDGE
Net Price complete with tubes **$24.95**

Replacement tubes for use in Model BN Bridge:
6AF6G—12AX7



CORNELL-DUBILIER

MODEL BF-60

This is the latest Capacitor-Resistor Bridge designed and built by C-D to quickly and accurately measure the important characteristics of substantially all types of Capacitors and Resistors. It detects capacitor defects such as OPENS and SHORTS; INTERMITTENTS, HIGH and LOW CAPACITIES; HIGH LEAKAGE and POWER FACTOR of Electrolytic Capacitors; as well as INSULATION RESISTANCE of Paper, Mica and Ceramic Dielectric Capacitors. Operates from 110-125 VAC 50-60 Cycles.

MEASURES CAPACITY—of substantially all types of capacitors; capacity between wires and shielding, transformer windings, wires in cables, etc. Range .00001 to 1000 Mfd. in 4 scales.

MEASURES POWER FACTOR—from 0 to 50%.

MEASURES LEAKAGE—in electrolytics.

MEASURES INSULATION RESISTANCE—of Paper, Mica and Ceramic Capacitors and between coil windings, insulation and conductor, etc.

DETECTS—OPENS, SHORTS, INTERMITTENTS.

MEASURES RESISTANCE—Range 100 to 5,000,000 ohms.

HIGH SENSITIVITY—amplified bridge circuit provides sharp, accurate and definitive readings.

POLARIZING VOLTAGES—25, 150, 250, 350, 450 D.C.

VISUAL EYE NULL INDICATOR—simple, rapid and reliable.

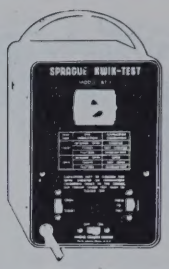
DIRECT READING SCALES—easily read, simple, accurate.

SHOCK PROOF—protected against after-test capacitor-charge shock.

PORTABLE—has recessed carrying handle—measures 5½"D x 7"H x 10"W and weighs only 8 lbs. 4 ozs. Hammered Enamel Finish Metal Case.

MODEL BF-60 CAPACITOR-RESISTOR BRIDGE
NET PRICE complete with tubes **$42.85**

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE



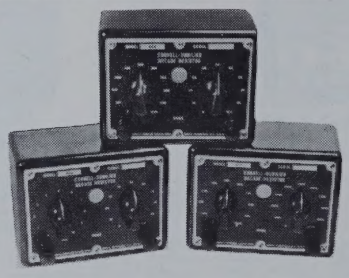
SPRAGUE
KT-1 KWIK-TEST
Capacitor Checker

Now, for the first time, you can eliminate one of the most time-consuming service operations of all. No longer do you have to bother with unsoldering capacitors just to check them. With Sprague's new "Kwik-Test" Capacitor Checker you can zip through circuits, in sets containing as many as 100 capacitors, checking for opens, shorts, or intermittents quick as a wink! "Kwik-Test" pays for itself in no time in checking for shorted ceramic capacitors in TV receivers.

You can check any bypass, coupling, or filter capacitor within 30mmf to 2000mf, even when it is in parallel with a resistance as low as 60 ohms, except those in tuned circuits of 10mc or higher. Capacitors between .1 and 2000mf may be tested for shorts and intermittent shorts even if in parallel with a resistance as low as 2 ohms. "Kwik-Test" is the only instrument that checks capacitors for shorts or opens without unsoldering them from the circuit.

See this amazing 10-second demonstration without delay. You'll want a "Kwik-Test" as soon as you see it. In fact, you can't afford to be without one in this age of modern servicing.

Model KT1—115V/60cy **$34.50**
Model KT-1V—115-230V/25-60cy **39.50**



CORNELL-DUBILIER
Decade Resistors Models
RDA-RDB-RDC

C-D Decade Resistors provide a reliable source of resistance for substitution purposes in a wide variety of electrical and electronic applications within the current and resistance rating of each unit. Units of resistance may be selected from the direct reading panel switch scale.

Each instrument permits a possible selection of 110 resistance values.

C-D Decade Resistors may be used individually or may be connected in series combinations to provide a range of values from

1 OHM TO 1,111,110 OHMS
IN STEPS OF 1 OHM

SPECIFICATIONS

MODEL RDA

Resistance Range: 1 to 110 ohms (in steps of 1 ohm).

	1-10 Ohm Range	10-100 Ohm Range
Current Rating — Max.	1.0 Amp.	0.5 Amp.
Tolerance	±5%	±3%
Resistance Elements	Wire Wound	Non-Ind. Wire Wound

Case Size — 3⅜" x 5" x 3"
Weight — 1 lb., 5 oz.
Net Price **$12.15**

MODEL RDB

Resistance Range: 100 to 11,000 ohms (in steps of 100 ohms).

	100-1000 Ohm Range	1000-10,000 Ohm Range
Current Rating — Max.	100 Ma.	50 Ma.
Tolerance	±3%	±3%
Resistance Elements	Non-Ind. Wire Wound	Non-Ind. Wire Wound

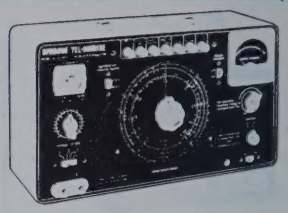
Case Size — 3⅜" x 5" x 3"
Weight — 1 lb., 5 oz.
Net Price **$12.50**

MODEL RDC

Resistance Range: 10,000 to 1,010,000 ohms (in steps of 10,000 ohms).

	10,000-100,000 Ohm Range	100,000-1,000,000 Ohm Range
Current Rating — Max.	5 Ma.	2 Ma.
Tolerance	±1%	±1%
Resistance Elements	Carbon Precision	Carbon Precision

Case Size — 3⅜" x 5" x 3"
Weight — 1 lb., 5 oz.
Net Price **$12.50**



SPRAGUE
TO-4 TEL-OHMIKE
Capacitor-Resistor Analyzer

The handiest instrument you can buy! Modern service shops find it a must. Although moderately priced for radio and television repair shops, it offers you the quality and the accuracy required by the nation's outstanding laboratories.

The TO-4 comes complete with step-by-step instruction manual and capacitor guide.

CAPACITANCE BRIDGE measures up to 2000 mf in five overlapping ranges. The special 1 mmf to 100 mmf range is exclusive with the Sprague Tel-Ohmike.

INSULATION RESISTANCE directly read on large meter up to 20,000 megohms for paper, ceramic, and mica capacitors. No guessing with neon lamps.

LEAKAGE CURRENT of electrolytics measured directly on meter, with exact rated voltage up to 600v. applied from continuously adjustable power supply. Two ranges: 0-6-60 ma. No guessing on eye-width or counting lamp blinks when you use a TO-4!

POWER FACTOR of electrolytic capacitors measured by Wien Bridge up to 55% in three ranges.

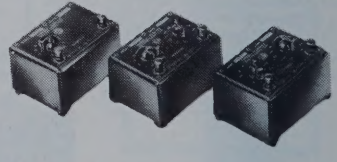
RESISTANCE BRIDGE measures from 2.5 ohms to 25 megohms at line frequency.

MAGIC-EYE TUBE simplifies bridge balancing for capacitance, power factor, and resistance measurements.

PUSH-BUTTONS for instant range selection, also discharge capacitors for safety automatically upon release.

MODERN CASE finished in two-tone gray; measures 8⅞" high, 14⅝" wide, 6⅛" deep. Weight only 12½ pounds.

MODEL TO-4.....**115 VAC/50-60 cy**.....**$73.50 net**
Model TO-4X..... 115-230 V/25-60 cy..... $79.50 net



CORNELL-DUBILIER

CAPACITOR DECADES

C-D Capacitor Decades provide accurate standards over a wide range of capacity. May be used in groups of the three decades, shown above, or used individually for maximum flexibility. Each decade is furnished with calibration chart giving exact capacity values for all scale markings, extending use to more precise measurements.

Rated Voltage—600 D.C.—220 A.C.

Model	Capacity				+ or − Tol.	Dielectric	Net Price
CDA 5	.011	mfd. in.	.0001	mfd. steps	5%	Mica	$11.35
CDB 5	1.1	mfd. in.	.01	mfd. steps	5%	Oil-Paper	11.35
CDB 3	1.1	mfd. in.	.01	mfd. steps	3%	Oil-Paper	13.30
CDC 5	10.0	mfd. in.	1.0	mfd. steps	5%	Oil-Paper	19.95
CDC 3	10.0	mfd. in.	1.0	mfd. steps	3%	Oil-Paper	22.00

SUN RADIO—since 1922—headquarters for all major brands of Test Equipment for every purpose. Whatever your requirement, please check SUN RADIO first!

Simpson

INSTRUMENTS THAT STAY ACCURATE

MODEL 260

MODEL 260RT

MODEL 260

World's Most Popular High Sensitivity Set Tester For Radio and Television

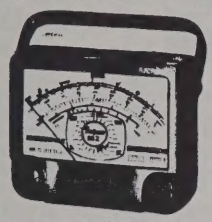
MODEL 260 VOLT-OHM-MILLIAMMETER

20,000 Ohms per Volt DC, 1,000 Ohms per Volt AC.
Volts, AC and DC: 2.5, 10, 50, 250, 1000, 5000
Volts, Output: 2.5, 10, 50, 250.
Decibels: —12 to +55 DB in 5 ranges.
Zero DB= .006 watt in 500 ohms.
Current, DC: 100 ua; 10,100,500 ma; 10a
Ohms: 0-2K (12 ohms center), 0-200K (1200 ohms center), 0-20 Meg. (120K center).
Complete with test leads and Operator's Manual.
Shipping Wt. 5 lbs. Price.....$38.95
Weight 6½ lbs. Shipping Wt. 9 lbs. Price.. 46.90
25,000 Volt High Voltage Probe for 260..... 9.95

All Prices Net. Subject to Change Without Notice.

MODEL 260. Size 5¼"x7"x3⅜". Weight 3½ lbs.
MODEL 260RT (in roll top case). Size 6⅝"x9"x4¾". Weight 6½ lbs.

SIMPSON MULTITESTERS



SIMPSON MODEL 262
AC-DC VOLT-OHM-MILLIAMMETER

20,000 Ohms per volt DC. 5,000 Ohms per volt A.C.

33 RANGES

DC VOLTAGE: 0-1.6, 0-8, 0-40, 0-160, 0-400, 0-1600, 0-4000 volts (20,000 ohms per volt sensitivity)
AC VOLTAGE: 0-3, 0-8, 0-40, 0-160, 0-800 volts (5,000 ohms per volt sensitivity)
AF OUTPUT VOLTAGE: 0-3, 0-8, 0-40, 0-160, volts (0.1 microfarad internal series capacitor)
VOLUME LEVEL IN DECIBELS: —12 to +45.5 DB in 4 ranges. Zero DB = .001 watt in 600 ohms.
DC RESISTANCE:
0-500 ohms (4.5 center); 0-5,000 ohms (45 ohms center); 0-50,000 ohms (450 ohms center); 0-500,000 ohms (4,500 ohms center); 0-5 megohms (45,000 ohms center); 0-50 megohms (450,000 ohms center)
DC CURRENT: 0-80, 0-160 microamperes, 0-1.6, 0-16, 0-160 milliamperes, 0-1.6, 0-16 amperes (267 millivolts maximum drop)
MODEL 262 complete with 2 test leads with removable alligator clips, 4000 v. DC multiplier, Operator's Manual. Size 7-15/16"x6"x2-15/16". Weight 4 lbs. (Shipping Wt. 6 lbs.)
Net Price.....$59.50
Accessory High Voltage Probe (16000 volts DC) 11.50
High Voltage Probe for 262 (40,000 V).... 12.50
High Voltage Probe for 269 (40,000 V).... 12.50
Eveready Carrying Case No. 5262..... 9.95

SIMPSON MODEL 269
AC-DC VOLT-OHM-MICROAMMETER

100,000 Ohms per volt DC. 5,000 Ohms per volt AC.

33 RANGES

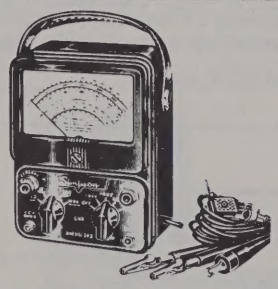
DC VOLTAGE: 0-1.6, 0-8, 0-40, 0-160, 0-400, 0-1600, 0-4000 volts (100,000 ohms per volt sensitivity.)
AC VOLTAGE: 0-3, 0-8, 0-40, 0-160, 0 800 volts (5,000 ohms per volt sensitivity)
AF OUTPUT VOLTAGE: 0-3, 0-8, 0-40, 0-160 volts (0.1 microfarad internal series capacitor)
VOLUME LEVEL IN DECIBELS: —12 to +45.5 DB in 4 ranges. Zero DB = .001 watt in 600 ohms.
DC RESISTANCE:
0-2,000 ohms (18 ohms center); 0-20,000 ohms (180 ohms center); 0-200,000 ohms (1800 ohms center); 0-2 megohms (18,000 ohms center); 0-20 megohms (180,000 ohms center); 0-200 megohms (1.8 megohms center)
DC CURRENT: 0-16, 0-160 microamperes, 0-1.6, 0-16, 0-160 milliamperes, 0-1.6 0-16 amperes (267 millivolts maximum drop)
MODEL 269 complete with 2 test leads with removable alligator clips, 4000 v. DC multiplier, Operator's Manual. Size 7-15/16"x6"x2-15/16". Weight 4 lbs. (Shipping Wt. 6 lbs.)
Net Price.....$88.00
Accessory High Voltage Probe for 16000 volts DC..... 11.50
High Voltage Probe for 262 (40,000 V).... 12.50
High Voltage Probe for 269 (40,000 V).... 12.50
Eveready Carrying Case No. 5262..... 9.95

MIDGETESTER Model 355

AC-DC VOLT-OHMMETER
SELF SHIELDED!
Fits in Your Shirt Pocket!

$29.95 *New*

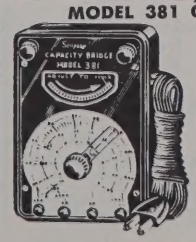
Leather Zipper Case $2.95



MODEL 303 VACUUM TUBE VOLTMETER

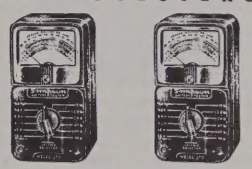
DC. VOLTAGE: Ranges—1.2, 12, 60, 300, 1200
Input Resistance—10 megohms for all ranges
DC Probe—with one megohm isolating resistor
Polarity reversing switch
OHMS: Ranges—1,000 ohms (10 ohms center)
100,000 ohms (1000 ohms center)
1 megohm (10,000 ohms center)
10 megohms (100,000 ohms center)
1000 megohms (10 megohms center)
AC VOLTAGE: Ranges—1.2, 12, 60, 300, 1200
Impedance (with cable) approx. 200 mmf shunted by 275,000 ohms
AF VOLTAGE: Ranges—1.2, 12, 60
Frequency Response—Flat 25 to 100.000 cycles
DECIBELS: —20 to +63 DB in 5 ranges.
Zero DB = .001 watt in 600 ohms.
GALVANOMETER: Zero center for FM discriminator alignment and other galvanometer applications
R. F. VOLTAGE: (Signal tracing with Accessory High Frequency Crystal Probe)
Range—20 volts maximum
Frequency—Flat 20 KC to 100 M.C.
LINE VOLTAGE: 105-125 V. 50-60 cycles
SIZE: 5¼"x7"x3⅜" (bakelite case). Weight: 4 lbs.
Shipping Weight: 6½ lbs.
NET PRICE: Model 303, including DCV Probe, ACV—Ohms probe and Ground Lead with Operator's Manual $68.00
Accessory High Frequency Probe..... 9.50
Accessory High Voltage Probe (30,000 volts).. 9.95
Also available with roll top case, Model 303RT 76.00
AC Probe for Model 303..... 3.00
DC Probe for Model 303..... 3.50
Ground Lead for Model 303..... 1.00

MODEL 381 CAPACITY BRIDGE



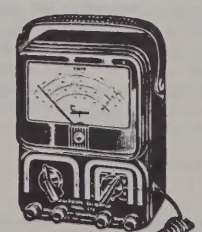
Range 1.... 20 mmfd. to 500 mmfd.
Range 2.... .0005 mfd. to .05 mfd.
Range 3.... .05 mfd. to 5 mfd.
Range 4.... .5 mfd. to 500 mfd.
Size: 3⅜" x 5½" x 2⅜".
Line Voltage: 105-125 volts, 50-60 cycle.
NET PRICE.....$28.50

MULTI-PURPOSE MICROTESTERS



230—AC Volts: 0-10, 250, 1000 (400 ohms per volt) DC Volts: 0-10, 50, 250, 1000 (1000 ohms per volt) DC Milliamperes: 0-10, 50, 250—Ohms: 0-1000, 0-100,000—with Leads.....$24.95
240—AC Volts: 0-15, 150, 750, 3000 (1000 ohms per volt) DC Volts: 0-15, 75, 300, 750 3000 (1000 ohms per volt) DC Milliamperes: 0-15, 150, 750—Ohms: 0-3000 (center scale 30) 0-300.000 (C.S. 3000) with Leads.....$26.35
370—AC Ammeter: 0-1, 0-2.5, 0-5, 0-10, 0-25 amps 19.95
371—AC Voltmeter: 0-150, 0-300, 0-600 volts.... 18.40
372—Ohmmeter; 0-500 ohms (5 ohms center) 0-5000 ohms (50 ohms center) 0-50,000 ohms (500 ohms center) 0-500,000 ohms (5,000 ohms center) 0-5 meg. (50,000 ohms center) 0-50 meg. (500,000 ohms center) — with Leads 25.50
373—DC Milliameter: 0-1, 5, 10, 25, 50, 100, 250, 1000 Milliamperes 19.95
374—DC Microammeter: 0-50, 100, 250, 500, 1000 Microamperes 23.00
375—DC Ammeter: 0-1, 2.5, 5, 10, 25 Amperes.... 19.95
376—AC Voltmeter (Rec. Type—1000 ohms per volt) 0-5, 10, 25, 50, 100, 250, 500, 1000 AC Volts 19.95
377—DC Voltmeter (Res. 1000 ohms per volt) 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC Volts 19.95
378—AC Milliammeter (Self contained transformer) 0-5, 25, 100, 250, 1000 Milliamperes..... 22.60
379—Battery Tester (Separate arcs for Radio A Batteries, Hearing-Aid A Batteries and for all B Batteries) — with Leads.....$23.70
385—Temperature Indicator (Range —50° + 70° F —Self Contained Battery with Test Leads..... 30.00
390—Volt-Amp-—Wattmeter: AC current, 60 cycles—Volts: 0-150, 0-300 — Amperes: 0-3, 0-15—Watts: 0-300, 0-600, 0-1500, 0-3000—with Breakin Plug and Leads 39.50
391—AC-DC Volt-Wattmeter—Ranges: AC or DC—Volts: 0-130, 0-260—Watts: 0-1500, 0-3000 with Cord and Plug 30.00
392—AC-DC Volt-Wattmeter—Ranges: AC or DC—Volts: 0-130, 0-260—Watts: 0-1000, 0-5000 with Cord and Plug 35.00

ALL MODEL MICROTESTERS — Size 3"x5⅞"x2⅛" Shipping Weight 3 lbs.



MODEL 276
OSCILLOSCOPE CALIBRATOR

RANGES

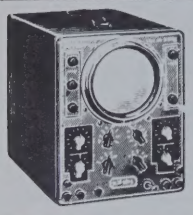
RMS: .36—.9—3.6—9—36—90
PEAK: .50—1.25—5—12.5—50—125
PEAK to PEAK: 1.0—2.50—10—25—100—250
SIZE: 5¼"x7"x3⅜". 150-125 V. 50-60 cycles
WEIGHT: 2½ lbs. Shipping weight 4 lbs.
NET PRICE $29.50

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

JACKSON ELECTRICAL INSTRUMENT CO.

"SERVICE ENGINEERED" TEST EQUIPMENT

JACKSON ELECTRICAL INSTRUMENT CO.

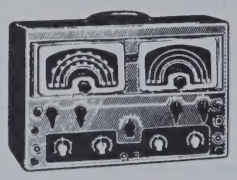


5-Inch Oscilloscope for VHF-UHF-COLOR

Model CRO-2

Wide Band Amplifier: Flat within 1 db from 20 cycles through 4.5mc. Ideal for display of color burst signals and the level of Color Chrominance Signals. Vertical Sensitivity: To .018 VPI. Horizontal Circuits: Provides positive or negative signal with Internal Horizontal Sync. Horizontal Sweep expansion gives up to 20 inches of equivalent width. Horizontal Deflection sensitivity through push-pull amplifiers is 0.40 RMS volts per inch. Linear Sweep Oscillator: Saw tooth wave, 20 cycles through 50kc per second in 5 steps. A standard voltage is provided for use in determining unknown voltages. Other Features: Return Trace Blanking, Synchronizing Input Control, Vertical Polarity Reversal, Direct Connection to CR Tube Plates, and Intensity Modulation. Low Capacity and Demodulation Probes available. 13" high, 10 1/4" wide, 15 1/8" deep. Shipping weight 32 pounds.

Model CRO-2, net each.....$220.50

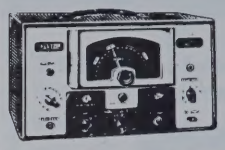


Sweep-Marker Television Generator

Model TVG-2

Provides both sweep and marker oscillators as well as a separate crystal oscillator. Sweep Oscillator: Three ranges, 30kc thru 216mc all on fundamentals. Sweep adjustable 0 thru 18mc in 7 steps. Marker Oscillator: Coverage from 4mc thru 216mc. Facilities for using 3 marker pips simultaneously. Crystal Oscillator: For use with any crystal fundamental from 3mc to 20mc. A beat Detector is also incorporated for checking of beat between variable marker and crystal oscillator. RF Output: Output control and step attenuator. Output impedance 90 ohms with last tap variable from 0 to 500 ohms. Other Features: 400 Cycle Modulation for use with either marker or crystal oscillator, Phased 60 cycle sine wave timing for Oscilloscope, Blanking for single trace pattern, plus provision for inserting a video modulation. Dimensions: 13" high, 8-1/2" deep, 19-1/8" wide. Ship. wt. 35 lbs.

Model TVG-2, net each.....$254.75



NEW! COLOR BAR/DOT Generator

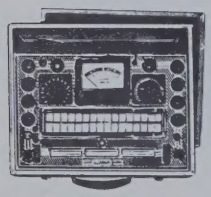
Model 700

Model 712

Complete color generator provides both a variety of color bar patterns, or dots and crosshatch for convergence checks. Model 700 provides Color Bars but no dots or crosshatch. Signal Outputs: Composite video of either polarity with adjustable amplitude to 1 volt across 90 ohms. Modulated RF, channels 3 through 5 at .1 volt across 300 ohms. Horizontal sync. positive polarity, 1 volt across 200 ohms. Color subcarrier, 40 milliwatts across 200 ohms at burst phase. Both Models 712 and 700 provide white, yellow, cyan, green, magenta, red, blue, and black bars. In Color Difference Position, provide 6 bars in the sequence, I, Q, I & Q, R-Y, B-Y, and R-Y plus B-Y. Or will provide single color bar in Red, Green or Blue. Both Color subcarrier and sound frequencies crystal controlled. 16 1/2" wide x 9 1/2" high x 10 1/4" deep. Shipping weight 32 pounds.

Model 700, net each.....$289.10

Model 712, net each.....$387.10

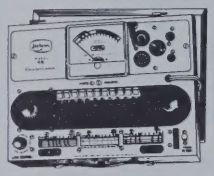


Dynamic® Tube Tester

Model 648P

Current flowing in plate circuit is read on 4 inch meter. Tests all tubes under peak conditions. Provides simplified operation. There are actually only three controls to operate for any tube: Heater Voltage, Plate Load Control, and the Sequence Switch. Line Voltage Control calibrated to indicate actual line voltage from 100 to 125 volts, eliminating the need for line voltage meters. Shorts and Test indicates only when tube is shorted. Tests each tube element for possible shorts. Life-Line Test shows when tube is approaching the end of its life. Complete provision made for testing all receiving types, including the new 600 mil series TV types, subminiatures, and even many tubes now considered obsolete but still found in old receivers. Spare sockets provide for future additions. Replaceable roll chart. Shipping weight 23 pounds.

Model 648P, net each.....$107.31



New! Tube Tester

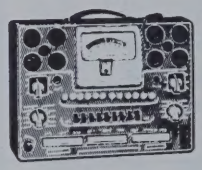
With Plug-In Accessories

Model 49

A sensational new idea in a low cost tube tester. One meter and one power supply serve for a wide variety of plug-in testers. Accessory testers plug-in at left of meter in place of blank panel. Quick interchangeability of accessories provided by airplane type fastener. Tube tester quickly checks all modern tubes. Lever-action shows which pins are connected or disconnected. Big 5-inch meter for GOOD-BAD or percent quality indication also has scales for accessory testers. P49-B Unit readies tester for all accessory units. 49-S unit for older type tubes converts tube socket panel to plug-in.

Model 49, net each.....$48.95

Model P49-B, Plug-In Unit, net each.....$2.89
Model 49-N, High Resistance Shorts Test, net each.....$6.81
Model 49-C, Heater Current Test, net each.....$14.65
Model 49-R, Selenium Rectifier Test, net each.....$17.59
Model 49-S, Auxiliary Tube Sockets, net each.....$11.71



Challenger Dynamic® Tube Tester

Model 715

A low cost tube tester, employing the patented Jackson Dynamic method of applying separate element voltages to each tube element, making test under actual use conditions. High voltage power supply tests many tubes under plate voltages as high as 200 volts. Improved switching system provides spare circuits together with switch and socket positions for future use. Large 4-inch meter gives easy-to-read indication of tube condition at a glance. Complete shorts test for each tube element. Tests over 700 types including new TV types, and rectifiers. Built-in roll chart is frequently revised. You get a one-year free supplement service. Handy steel cased instrument is ideal for use in home or shop. Shipping weight 14 lbs.

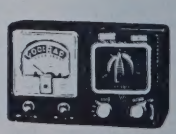
Model 715, net each.....$77.91

New Tele-Volter VTVM Model 709

Has 7" meter and illuminated function windows for greatest accuracy and easiest use. As a DC voltmeter has 11 megohm input resistance. DC Voltage Ranges 0 to 1, 5, 10, 50, 100, 500, and 1,000. Calibrated Zero Center Range, positive or negative in 7 ranges from .5 to 500. AC voltmeter essentially flat to 4.5 mc. through 100 volt range. Has same ranges as DC plus peak-to-peak scales. Reads resistance in 7 ranges to 1.000 megohms. Shipping weight 13 pounds.

Model 709, net each.....$93.10

Selenium Rectifier Test Set Model 710



Tests all radio or TV selenium rectifiers rated from 20 to 650 ma., within the voltage range of 25 to 300 volts ac. Ingenious Sele-Rater shows you ratings of unmarked rectifiers quickly and accurately. GOOD-BAD scale shows immediately when rectifier is safe for continued use, or should be replaced. Shows voltage drop across rectifier load. Has "line adjust" control for greatest accuracy. With test leads and Sele-Rater. Shipping weight 5 pounds.

Model 710, net each.....$28.91

PRECISE TEST EQUIPMENT

Available in Kit or Wired Form

precise

MODEL 610 RF SIGNAL GENERATOR. The lowest priced signal generator in the field offering:—Same RF head as Model 630; 110 MC on fundamentals; 330 MC on harmonics; 60 and 400 cycle AF; Cathode-follower output; Ext. Mod.; Speech Amp.; Individually tuned coils.

Model 610K

Model 610KA . . . $28.95 (pre-assembled head)
Model 610W . . . $39.95 (wired) **$23.95**

MODEL 630 RF-AF-TV AND MARKER GENERATOR. For the first time in the history of the industry . . . SO MUCH FOR SO LITTLE. 110 MC on fundamentals, 330 MC on harmonics; Pre-tuned RF (within 1%) head*; AF from 20 to 20,000 cycles; variable % and Ext. Mod.; Cathode-Follower and Constant Z output; Stepping attenuator; Speech Amp.; Xtal Marker with Amp. control; RF and AF Standby; Wien Bridge AF; Colpitts RF; Illuminated Drum Dials; Coax outputs; Separately toned coils; Filtered AC; Vernier tuning; Separate RF; Shielded; 8" x 11" x 5"; Etched panel.

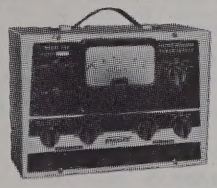
Model 630K

Model 630KA . . . $38.95 (pre-assembled head)
Model 630W . . . $53.95 (Factory wired) **$33.95**

MODEL 635 UNIVERSAL AF SINE, SQUARE AND PULSE GENERATOR. For accurate testing audio and video circuits. 1% Ceramic precision resistors; Wien Bridge; variable Z and cathode-follower output; minimum overshoot and roundoff through 100,000 cycles; sine waves through 200 KC

Model 635K

Model 635W .....**$52.50** (Factory wired) **$33.50**



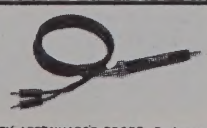
NEW PRECISE MODEL 760 . . . VOLTAGE REGULATED POWER SUPPLY. Compact versatility; a must for every serviceman, ham, and lab man. 140 volts to over 450 volts with 1% accuracy. Measures current, high voltage, high and low AC voltage. Rugged 4½" meter; heavy duty steel case. 3 color construction book. Wt.: 10 lbs. Size: 11" x 8" x 5".

760K . . . . kit form **$39.95**
760W . . . factory wired $59.95

NEW PRECISE MODEL 111 . . . TUBE TESTER. The latest in Tube Tester design—the NEW 111 is the ONLY KIT that checks BOTH EMISSION and MUTUAL CONDUCTANCE. Features NEW TYPE switches; VOLTAGE SAPPER CHECK; GAS CHECK; simplified SHORT CHECK; LATEST TYPE ROLL CHART; checks all tubes including hearing aid, miniatures, and CRT's.

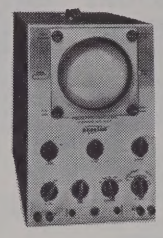
Rugged construction; deeply etched aluminum panel; 3 color step-by-step construction book. Wt.: 30 lbs. Size: 14" x 16" x 6".

111K . . . . kit form **$69.95**
111W . . . factory wired $139.95



MODEL 960 CAPACITY ATTENUATOR PROBE. Reduces input C. and loading effects of an oscilloscope by 10 to 1. Adjustable for any scope. Lowest priced in the field, but still using highest quality components.

Wired Only . . . **$5.95**



The PRECISE Model 315 is a best buy as a low cost, high quality oscilloscope for general radio and TV applications. It features such innovations as frequency compensated vertical and horizontal attenuators along with identical vertical and horizontal amplifiers.

The Model 315 is rugged and simple to build. It uses a 5CP1 type tube with a post accelerator. Both the horizontal and vertical sections are cathode-follower input type and are AC coupled.

The instrument is housed in a grey steel cabinet. Attractive brushed aluminum with black lettering and a bezel comprise the front panel.

Specifications:

VERTICAL — The vertical amplifiers are within 6db through 500KC. Single ended, AC coupled, cathode follower, frequency compensated stepping attenuator input. Basic sensitivity is approximately 250 millivolts per inch. Outputs are push-pull.

HORIZONTAL — The same general specifications as the vertical amplifier.

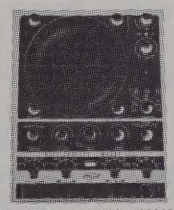
SYNCHRONIZATION — External, internal.

SWEEP RATE — From approximately 10 cycles to 100KC. Hard vacuum type sweep circuit.

CALIBRATION — 6.3 volts sine wave.

FOCUSING — Focus, intensity and astigmatism controls. The astigmatism control is available from the rear. A standby switch is used to turn off CRT filaments when not in use.

MODEL 315K .....$49.95 Net Ea.
MODEL 315 WIRED.....$84.95 Net Ea.



SPECIFICATIONS: PRECISE MODEL 300 OSCILLOSCOPE —

VERTICAL—Vertical-flat (3db) DC through 5 megacycles with sensitivity of greater than 10 millivolts push-pull (3.94 Millivolts/cm); Constant Resistance; Push-pull input immediately converted to single-ended normal or reverse phase by shorting bar at inputs 1 and 2; Frequency compensated vertical stepping attenuator selects AC or DC inputs; Push-pull DC amplifiers from input through output; Internal electronic mixing through inputs 1 and 2; five-way binding posts.

POSITIONING — Bridge type positioning on vertical and horizontal does not vary tube characteristics.

HORIZONTAL — Frequency compensated stepping attenuator in horizontal amplifier; Push-pull Horizontal out.

BLANKING — Internal (return trace blanked), external (return trace not blanked), 60 cycle or 120 cycle Blanking through Blanking amplifier circuit.

SYNCHRONIZATION — External, Internal Positive, Internal Negative, Internal 60 cycle or Internal 120 cycle synchronization.

SWEEP RATE — Driven or non-driven linear sweeps from 1 cycle to 80KC in five ranges (1-10 cycles uses external C circuit); Trigger potentiometer.

MAGNIFIER — Electronic magnifier and magnifier positioner allows any part of a signal to be magnified up to ten times (equivalent to 70 inches of horizontal deflection).

CALIBRATION — Internal square wave calibrator and potentiometer for using oscilloscope at a VTVM on Peak to Peak measurements.

CALIBRATION SCREEN — Edge-illuminated scale and graticule may be turned on or off; filtered screen.

OUTPUTS ON FRONT PANEL — Plus Gate output; Sawtooth output; 60 cycle phasing output; 60 cycle unphased output; Calibration output.

FOCUSING — Astigmatism, focus and intensity control.

CRT — NEW 7" Tube, normally supplied is medium persistency type 7VP1, or 7JP1 may also be used (oscilloscope green trace) — high persistency types available at additional cost.

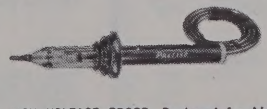
DIRECT — Deflection plates available from rear of cabinet.

INTENSITY MODULATION — Z modulation through modulation amplifier.

GENERAL — Low loss components; Over-designed fused power supply for additional circuitry; Deeply etched aluminum panel; New parts from original manufacturers — (NO SURPLUS); Steel cabinet; 11" x 14" x 17"; complete with instruction book and all components; Accessories: Model 912T(MM) Demodulator Probe and Model 960 Capacity Attenuator Probe available at extra cost — please see specifications on following pages.

There are many additional features and circuits in kit form, which may be added to the Model 300. Please write us for descriptive literature.

300K—kit form **$94.95**
300W—factory wired **$199.50**

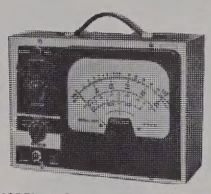


MODEL 999 HIGH VOLTAGE PROBE. Designed for high voltage measurements with special emphasis on Safety, Operational Simplicity and Rugged Construction. Exclusive Features: MULTIPLE INSULATION, MECHANICALLY SHOCKPROOF; CHANGEABLE TIPS; SWIVEL connection. Odds are billions of billions to 1 that no breakdown will occur! INTERCHANGEABLE RESISTORS . . . Wired Only **$6.98**

MODEL 909 VACUUM TUBE VOLTMETER. 1% Ceramic precision Resistors; Coax DC connector; FM zero alignment scale; burn-out proof circuit. Rugged oversize 4½" meter

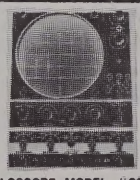
Model 909K

Model 909W ..... **$37.50** (Factory wired) **$25.98**



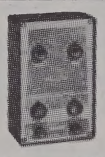
NEW PRECISE MODEL 9071 . . . VACUUM TUBE VOLTMETER WITH VR. PRECISE again the leader—featuring the FIRST VTVM with TRUE VOLTAGE REGULATION. NEW TYPE VR TUBE assures true, accurate and stable readings . . . no drift . . . no shift . . . large, rugged 7½" meter; separate 5V AC scale; 25 MEG. input on DC; true zero center; deeply etched aluminum panel; sturdy steel case; step-by-step 3 color construction book. Wt.: 11 lbs. Size: 11" x 8" x 5".

9071K . . . . kit form **$35.95**
9071W . . . factory wired $49.95



PRECISE 8½" OSCILLOSCOPE MODEL #308 . . . BIG SCREEN SCOPE. An oscilloscope unique in the industry . . . THE ONLY 8½" scope on the commercial market . . . All the general specifications of the time proven Precise model #300; over 72 sq. inches of viewing space provided by its 8½" tube; ANODE INTENSIFIER; AND FREQUENCY SYNCHRONIZATION CONTROL TO ELIMINATE HORIZONTAL JITTERS (this and other features not found in other scopes at even greater cost) PLUS FULL VOLTAGE REGULATION. Wt.: 35 lbs. Size: 11" x 14" x 19".

308K . . . . kit form **$129.50**
308W . . . factory wired **$229.50**



NEW PRECISE MODEL 478 . . . CAPACITY DECADE BOX. Over 10 times the Capacity range in the NEW PRECISE CAPACITY DECADE BOX. The first to reach over 1 MFD at 1% accuracy. FOUR DECADES. All capacitors are within 1%; Silver Mica and low-drift, molded, oil-impregnated. Deeply etched aluminum panel; rugged construction; complete with Simplified Construction Manual. Size: 3¾" x 6¼" x 2".

478K . . . kit form **$18.95**
478W . . . factory wired $24.95

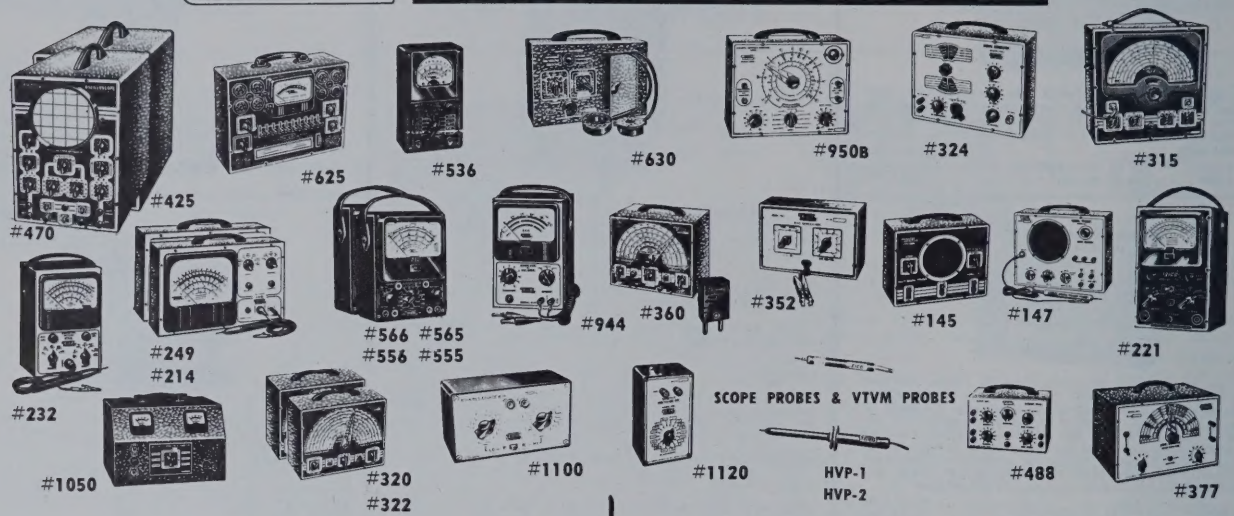
PRECISE NEW MODEL #468 — RESISTANCE DECADE BOX . . . PRECISE AGAIN LEADS THE FIELD with its New Low-Priced Resistance Decade Box. Ideal for specialized service work. Compact in size for Bench Drawers and Tool Boxes. Engineered with the customary Precise Accuracy and Dependability.
5 Separate Switches, 11 Positions on Each; plus or minus better than 1% for Extreme Accuracy; Readings from 10 OHM to 1,111,110 OHM in 5 Decades. Deeply etched Aluminum Panel; Rugged Construction; Complete with famous Precise Simplified Construction Manual. 3¾" x 6¼" x 2".

468K.....kit form..... **$18.95**
468W.....factory wired.....$24.95

MODEL 912 RF PROBE. LOWEST PRICED, factory wired Probe in the industry. Individually calibrated at 75 MC for accuracy, impedance and shunt capacity.

Wired Only . . . **$4.25**

EICO LABORATORY PRECISION INSTRUMENTS & KITS



#470 7" PUSH-PULL OSCILLOSCOPE KIT $79.95 Wired $129.50

V: flat ± 2 db 10 cps — 1 mc, .01 rms v/in. H: flat 10 cps — 200 kc, —4 db at 500 kc; .3 rms v/in. Sweep: 15 cps — 100 kc.

#425 5" PUSH-PULL OSCILLOSCOPE KIT $44.95 Wired $79.95

V & H: sens., .05-.1 rms v/in.; resp., 5 cps-500 kc. Useful to 2.5 mc. Sweep: 15 cps-75 kc. Z-axis inten. mod. Direct connection to CRT plates. 2-6J5, 3-6SN7, 2-5Y3, 5" CRT.

#625 TUBE TESTER KIT $34.95 Wired $49.95

Tests ALL conventional & TV tubes. 10 individual lever-type element switches.

#536 1,000 Ohms/Volt MULTIMETER KIT $12.90 Wired $14.90

AC/DC V: 0-1, 5, 10, 50, 100, 500, 5000. AC/DC Current: 0-1, 10 ma; .1, 1 A. Res.: 0-5000, 100K, 1 meg. 6 DB ranges: —20 to +69. 3" 400 ua meter movement.

#630 CATHODE RAY TUBE CHECKER KIT $17.95 Wired $24.95

Tests all types & sizes of TV picture & scope type CR tubes, in set or carton.

#950B R-C BRIDGE & R-C-L COMPARATOR KIT $19.95 Wired $29.95

Directly reads 0.5 ohms—500 megs res., 10 mmfd—5000 mfd cap., & power factor. Leakage test all caps. R, C, L comparison measurement against external std.

#324 RF SIGNAL GENERATOR KIT $26.95 Wired $39.95

Covers 150 kc—435 mc, 7 bands. Accuracy ± 1.5%; 6:1 vernier tuning knob. Colpitts RF osc. plate-modulated by K-follower. Variable depth of int. mod. 0-50% by 400 cps Colpitts osc. Variable gain ext. mod. ampl. needs only 3.0 v for 30% mod. Turret-mounted, slug-tuned coils.

#315 DELUXE RF SIGNAL GENERATOR KIT $39.95 Wired $59.95

Freq.: 75 kc—150 mc. Accuracy 1%. Vernier tuning. VR-tube stabilized power supply. 400 cps mod. Output over 100,000 uv. Fully shielded. Provision for ext. mod.

#232 PEAK-to-PEAK VTVM with UNI-PROBE KIT $29.95 Wired $49.95

Half-turn of Uni-probe selects DC or AC-Ohms! Calibration without removing from cabinet. Measures directly p-p voltage of complex & sine waves: 0-4, 14, 42, 140, 420, 1400, 4200. DC/RMS sine volts: 0-1.5, 5, 15, 50, 150, 500, 1500 (up to 30 kv with HVP probe). Ohms: .2 ohms to 1000 megs. 7 non-skip ranges on 4 functions. 1% multipliers. Zero center. 4½" meter, can't-burn-out circuit.

#249 DELUXE PEAK-to-PEAK VTVM KIT $39.95 Wired $59.95

Identical to #232 above plus extra convenience & legibility of 7½" meter.

#566 1,000 Ohms/Volt MULTIMETER KIT $14.90 Wired $18.95

AC/DC/Output V: 0-1.5, 10, 50, 100, 500, 5000. AC/DC Current: 0-1, 10 ma; .1, 1 A. Res.: 0-500, 100K, 1 meg. 6 DB: —20 to +69. 4½" 400 ua meter movement.

#556 1,000 Ohms/Volt MULTIMETER KIT $16.90 Wired $23.50

identical to #566 above, but with 1% precision resistors.

#565 20,000 Ohms/Volt MULTIMETER KIT $24.95 Wired $29.95

DC/AC/Output V: 0-2.5, 10, 50, 250, 1000, 5000. DC Current: 0-100 ua; 10, 100, 500 ma; 10 A. Res.: 0-2000, 200K, 20 meg. 5 DB: —12 to +55. 4½" 50 ua meter movement.

#555 20,000 Ohms/Volt MULTIMETER KIT $29.95 Wired $34.95

Identical to #565 above, but with 1% precision resistors.

#944 FLYBACK XFMR & YOKE TESTER KIT $23.95 Wired $34.95

Positive check of ALL flybacks & yokes in or out of set, in seconds! Detects even 1 shorted turn. Separate calibration for air- & iron-core flybacks.

#360 TV/FM SWEEP GENERATOR KIT $34.95 Wired $49.95
5 mc & 4.5 mc xtals available, $3.95 each.

Covers all VHF TV/FM channels & IF freqs.: 500 kc—228 mc on fundamentals. Continuous sweep width control 0-30 mc. Xtal marker osc.

#352 BAR GENERATOR KIT $14.95 Wired $19.95

Operates on channels 2-6. 16-23 vert. bars check H linearity. 13-22 hor. bars check V linearity. Independent of station-transmitted signals.

#145 MULTI-SIGNAL TRACER KIT $19.95 Wired $28.95

Audibly traces all IF, RF, video and audio from ANT to SPKR or CRT without switching.

#147 DELUXE MULTI-SIGNAL TRACER KIT $24.95 Wired $39.95

Unsurpassed for RF/IF/audio signal tracing in AM/FM/TV. Noise locator circuit applies DC test voltage to suspect component. Calibrated wattmeter.

#221 VACUUM TUBE VOLTMETER KIT $25.95 Wired $39.95

AC/DC V: 0-5, 10, 100, 500, 1000 (to 30 kv with HVP, to 250 mc with PRF, peak-to-peak with PTP probes). Res.: .2 ohms to 1000 megs. DB: —20 to +55. Zero center. 1% multipliers. 4½" meter, can't-burn-out circuit.

#214 DELUXE VTVM KIT $34.95 Wired $54.95

Identical to #221 above plus extra convenience & legibility of 7½" meter.

#1050 6V & 12V BATTERY ELIM. & CHRGR. KIT $29.95 Wired $38.95

0-8 V (10 A continuous, 20 A intermittent), 0-16 V (6 A continuous, 12 A intermittent). Separate voltmeter & ammeter.

#320 RF SIGNAL GENERATOR KIT $19.95 Wired $29.95

Freq.: 150 kc—102 mc, Hartley RF osc. Vernier tuning cond. Pure or mod. RF & Colpitts osc. 400 cps sine outputs.

#322 RF SIGNAL GENERATOR KIT $23.95 Wired $34.95

As #320 above plus individual calibration of each of its 5 bands.

#1100 RETMA RESISTANCE SUBST. BOX KIT $5.95 Wired $9.95

Substitutes RETMA resistors, 15 ohms to 10 megs, in decade multiples of 15, 22, 33, 47, 68, 100 ohms.

#1120 RETMA CAPACITANCE SUBST. BOX KIT $5.95 Wired $9.95

Substitutes RETMA caps., .0001 to .22 mfd.

HV PROBES: HVP-1 $6.95, HVP-2 $4.95. Both wired.

Extend range of VTVMs & 20,000 ohms/volt VOMs to 30 kv.

SCOPE PROBES & VTVM PROBES

#PSD SCOPE DEMODULATOR KIT $3.75 Wired $5.75
#PD SCOPE DIRECT KIT $2.75 Wired $3.95
#PLC SCOPE LOW CAPACITY KIT $3.75 Wired $5.75
#PTP VTVM PEAK-to-PEAK KIT $4.95 Wired $6.95
#PRF VTVM RF KIT $3.75 Wired $4.95

#488 ELECTRONIC SWITCH KIT $23.95 Wired $39.95

Permits simultaneous observation of 2 patterns on 1 scope. Continuously variable switching rates: less than 10 cps to over 2000 cps.

#377 Sine & Square Wave AUDIO GENERATOR
KIT $31.95 Wired $49.95

Freq.: sine, 20-200,000 cps; square, 60-50,000 cps. Resp.: ±1.5 db, 60-150,000 cps. Distortion less than 1%. Hum less than .4%. Accuracy ±3%. Output 10 V across 1000 ohms rated load (100 mw). Wien bridge: 4-gang condenser, 1% resistors.

AMPHENOL SOCKETS & CONNECTORS

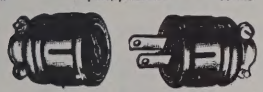
For Every Electronic Application

Sun Radio carries a complete stock of these very popular electronic components. Call on us for all your requirements.

110-VOLT PLUG & RECEPTACLE INSERTS

UL approved; black bakelite bodies. Rated at 15 amps.

AMPHENOL Number Retainer Ring Type	Receptacles Description	AMPHENOL Number Mounting Plate Type
61-F	2 pole, universal	61-F1
60-F	3 pole, polarized	60-F1
	2 pole, universal	61-MIP-61F
	Plugs	
61-M	2 pole, standard	61-M1
61-MP	2 pole, polarized	61-MP1
60-M	3 pole, polarized	60-M1



110-VOLT SHIELDED CABLE CONNECTORS

Fully shielded cable terminals; black bakelite bodies.

AMPHENOL Number With Cable Clamps	With Grommet	Description
60-F11	60-F4	3 pole receptacle
60-M11	60-M4	3 pole polarized plug
61-F11	61-F4	2 pole universal receptacle
61-M11	61-M4	2 pole standard plug
61-MP11	61-MP4	2 pole polarized plug

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
60-F	.22	.19
60-F1	.25	.21
60-F4	.31	.26
60-F11	.35	.295
60-M	.25	.21
60-M1	.28	.235
60-M4	.34	.285
60-M11	.38	.32
61-F	.19	.16
61-F1	.22	.19
61-F4	.28	.235
61-F10	.27	.23
61-F11	.31	.26
61-M	.20	.17
61-M1	.22	.19
61-M4	.29	.245
61-M10	.28	.24
61-M11	.33	.28
61-MP	.20	.17
61-MP1	.22	.19
61-MP4	.29	.245
61-MP10	.28	.24
61-MP11	.33	.28
61-MIP-61F	.19	.16

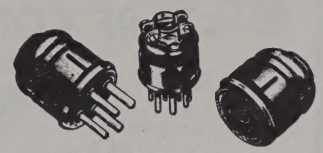
RECEPTACLE SHELLS

For "S" type sockets or "CP" type plugs. 61-61 lowers below surface; others extend above or below surface.

AMPHENOL Number	Description
23-1S	Shell only, small
23-1L	Shell only, large
61-61	Shell only

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
23-1S	.09	.075
23-1L	.09	.075
61-61	.08	.07

SUN RADIO — for prompt service and lowest prices on all your Amphenol requirements.



SHIELDED MULTI-WIRE CABLE CONNECTORS

Consist of "S" type sockets and "CP" plugs. Accommodates cable up to ⅜" diameter.

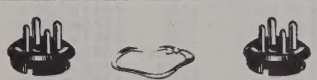
†With Grommet Cap 3-13

AMPHENOL Number Female	Male	Description
78-PF4	86-PM4	4 contact
78-PF5	86-PM5	5 contact
78-PF6	86-PM6	6 contact
78-PF8	86-PM8	8 octal
78-PF9	86-PM9	9 octal style
78-PF11	86-PM11	11 octal style

With Cable Clamp 3-24

AMPHENOL Number Female	Male	Description
78-PF4-11	86-PM4-11	4 contact
78-PF5-11	86-PM5-11	5 contact
78-PF6-11	86-PM6-11	6 contact
78-PF7S-11	86-PM7S-11	7 small
78-PF8-11	86-PM8-11	8 octal
78-PF9-11	86-PM9-11	9 octal style
78-PF11-11	86-PM11-11	11 octal style

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
78-PF4	.18	.153
78-PF5	.19	.16
78-PF6	.20	.168
78-PF7S	.20	.173
78-PF8	.20	.168
78-PF9	.21	.180
78-PF11	.23	.193
78-PF4-11	.21	.180
78-PF5-11	.22	.188
78-PF6-11	.23	.195
78-PF7S-11	.24	.20
78-PF8-11	.23	.195
78-PF9-11	.24	.205
78-PF11-11	.26	.22
86-PM4	.19	.165
86-PM5	.20	.17
86-PM6	.21	.175
86-PM7S	.21	.178
86-PM8	.20	.17
86-PM9	.21	.175
86-PM11	.21	.183
86-PM4-11	.24	.20
86-PM5-11	.24	.205
86-PM6-11	.25	.21
86-PM7S-11	.25	.213
86-PM8-11	.24	.205
86-PM9-11	.25	.21
86-PM11-11	.26	.218

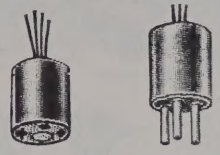


"CP" TYPE PLUGS

Black bakelite plugs, extremely compact and useful for multi-wire applications. Quickly, easily installed. Mate with "S" type sockets.

AMPHENOL Number With Mtg. Plate	Without	Description
86-RCP4	86-CP4	4 contact
86-RCP5	86-CP5	5 contact
86-RCP6	86-CP6	6 contact
86-RCP7L	86-CP7L	7 large
86-RCP7S	86-CP7S	7 small
86-RCP8	86-CP8	8 octal
86-RCP9	86-CP9	9 octal style
86-RCP11	86-CP11	11 octal style

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
86-CP4	.10	.09
86-CP5	.11	.095
86-CP6	.12	.10
86-CP7S	.12	.103
86-CP7L	.13	.113
86-CP8	.11	.095
86-CP9	.12	.10
86-CP11	.12	.108
86-CP8T	.12	.103
86-RCP4	.13	.113
86-RCP5	.14	.12
86-RCP6	.14	.123
86-RCP7S	.15	.128
86-RCP7L	.17	.145
86-RCP8	.14	.12
86-RCP9	.14	.123
86-RCP11	.15	.13
86-RCP8T	.17	.145

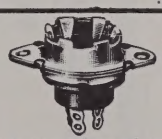


MINIATURE CABLE CONNECTORS

Black bakelite bodies, cad. plated brass shells. Polarized.

AMPHENOL Number Male	Description	AMPHENOL Number Female
	SHORT SHELL	
91-MPM3S	3 contact	91-MPF3S
91-MPM4S	4 contact	91-MPF4S
	LONG SHELL	
91-MPM3L	3 contact	91-MPF3L
91-MPM4L	4 contact	91-MPF4L
91-MPM5L	5 contact	— —
91-MPM6L	6 contact	— —
	FLARED SHELL	
— —	3 contact	91-MPF3
— —	4 contact	91-MPF4
91-MPM5	5 contact	91-MPF5
91-MPM6	6 contact	91-MPF6

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
91-MPM3S	.23	.20
91-MPM4S	.23	.20
91-MPM3L	.25	.21
91-MPM4L	.25	.21
91-MPM5L	.27	.23
91-MPM6L	.28	.24
91-MPM5	.27	.23
91-MPM6	.28	.24
91-MPF3S	.28	.24
91-MPF4S	.28	.24
91-MPF3L	.28	.24
91-MPF4L	.30	.25
91-MPF3	.28	.24
91-MPF4	.30	.25
91-MPF5	.30	.25
91-MPF6	.32	.27

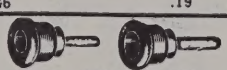


SHIELDED CHASSIS UNITS

Economical chassis receptacles for connecting shielded or unshielded cables. Mounts on surface or behind chassis or panel. Female only.

AMPHENOL Number	Description
78-PCG3	3 contact
78-PCG4	4 contact
78-PCG5	5 contact
78-PCG6	6 contact

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
78-PCG3	.16	.135
78-PCG4	.16	.135
78-PCG5	.18	.155
78-PCG6	.19	.16



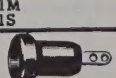
SINGLE PRONG PLUGS

Bakelite plugs, black or red; for use with Tip Jacks.

AMPHENOL Number	Description
71-1S	For ⅜" socket
71-1M	For ¼" socket
71-1L	For ⅝" socket

SINGLE PRONG PLUGS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
71-1L	.03	.025
71-1M	.03	.025
71-1S	.03	.025



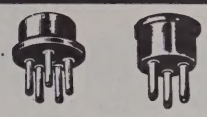
TIP JACKS

Bakelite, black or red. Mount in ⅜" hole.

AMPHENOL Number	Description
78-1S	For ⅜" plug
78-1L	For ⅝" plug
78-1M	For ¼" plug
78-1P	For .080" phone tip

TIP JACKS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
78-1L	.05	.0438
78-1M	.05	.0438
78-1P	.05	.0438
78-1S	.05	.0438



UNSHIELDED SPEAKER PLUGS

Molded-in-prongs that cannot work loose. For test panels, inter-communication systems, etc.

AMPHENOL Number	Description
71-4	4 contact, finger grip
71-5	5 contact, finger grip
71-6	6 contact finger grip
71-7	7 contact, finger grip
70-8	8 contact
70-9	9 contact
70-12	12 contact
70-20	20 contact
71-3S	3 contact, miniature cable plug
71-4S	4 contact, miniature cable plug
71-5S	5 contact, miniature cable plug
71-6S	6 contact, miniature cable plug
86-CP-3S	3 contact miniature chassis plug
86-CP-4S	4 contact, miniature chassis plug

MOLDED SPEAKER PLUGS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
71-4	.09	.08
71-5	.09	.08
71-6	.10	.085
71-7	.10	.09

RECTANGULAR SPEAKER PLUGS

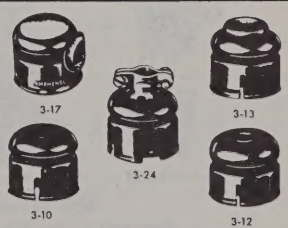
Cat. No.	Net Ea. 1-99	Net Ea. Per 100
70-8	.10	.09
70-9	.12	.105
70-12	.13	.11
70-20	.14	.12
70-26	.08	.07

MINIATURE PLUGS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
71-3S	.06	.055
71-4S	.08	.07
71-5S	.09	.075
71-6S	.10	.085

UNSHIELDED CHASSIS PLUGS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
86-CP3S	.07	.065
86-CP4S	.08	.07



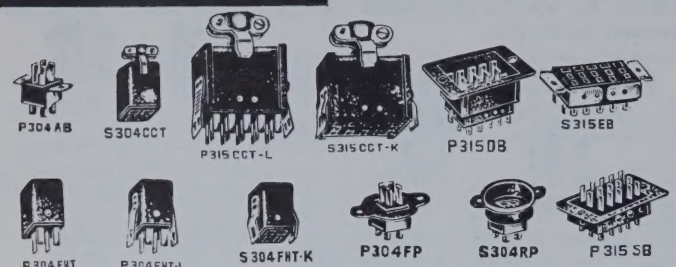
RECEPTACLE SHELLS

Sturdy drawn steel plug caps finished in black japan. Provides protected and attractive cable terminations when assembled with retainer ring type plugs and sockets or with 60 and 61 series connectors. Plug caps 1 1/16" long.

NUMBER	CABLE OUTLET
3-10	None
3-12	End metal grommet 5/16" ID.
3-13	End rubber grommet 7/16" ID.
3-17	Side rubber grommet 7/16" ID.
3-20	End metal grommet 7/16" ID.
3-24	Cable clamp for cables to 3/8"
3-34	End metal grommet 5/8" ID.
79-CC4	Cable clamp only

PLUG CAPS AND ADAPTER SHELLS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
3-10	.08	.07
3-12	.08	.07
3-13	.09	.075
3-17	.10	.09
3-20	.09	.075
3-24	.13	.11
3-34	.09	.075
CABLE CLAMP		
79-CC4	.05	.04



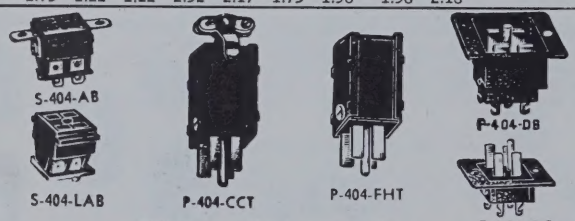
CINCH-JONES CONNECTORS

Polarized plugs for cord or chassis mounting. Phosphor-bronze "knife-switch" contacts give double contact area for high current rating. Molded black insulation; metal caps, fiber-liner, and cable clamps on all cord type connectors. Available with a variety of brackets and housings as shown "P" denotes plug. "S" denotes sockets. *The last two digits in the Cat. No. designate the number of contacts.*

300 Series Plugs and Sockets

Current Capacity—10 Amps—730 Volts Rms

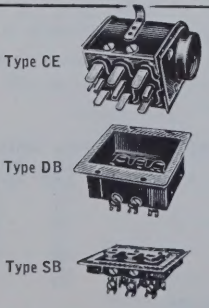
Cat. No.	Type AB Net Ea.	Type CCE Net Ea.	Type CCT Net Ea.	Type CCT-L Net Ea.	Type DB Net Ea.	Type EB Net Ea.	Type FHE Net Ea.	Type FHT Net Ea.	Type FHT-L Net Ea.	Type FP Net Ea.	Type RP Net Ea.	Type SB Net Ea.
P302	$.17		$.40	$.50				$.29	$.40	$.31	$.35	
P303	.22		.43	.53				.32	.43	.33	.38	
P304	.24		.47	.57				.36	.47	.37	.42	
P306	.29	.51	.51	.62			.41	.41	.51	.41	.47	
P308	.35	.56	.56	.67			.46	.46	.56	.46	.54	
P310	.40	.63	.63	.73			.51	.51	.63	.50	.62	
P312	.44	.69	.69	.83			.58	.58	.69	.55	.69	
P315	.57	.90	.90	.99	.85	.57	.76	.76	.85			.85
P318	.72	1.08	1.08	1.18	1.04	.72	.96	.96	1.04			1.04
P321	.90	1.27	1.27	1.37	1.23	.90	1.13	1.13	1.23			1.23
P324	1.08	1.50	1.50	1.61	1.47	1.08	1.37	1.37	1.48			1.47
P327	1.27	1.70	1.70	1.80	1.64	1.27	1.56	1.56	1.66			1.64
P330	1.47	1.98	1.98	2.08	1.89	1.47	1.80	1.80	1.90			1.89
P333	1.64	2.13	2.13	2.22	2.07	1.64	1.98	1.98	2.08			2.07
				CCT-K					FHT-K			
S302	.19		.41	.41				.31	.41	.31	.37	
S303	.23		.44	.54				.33	.44	.35	.40	
S304	.26		.47	.58				.37	.47	.38	.43	
S306	.32	.54	.54	.64			.43	.43	.54	.43	.51	
S308	.40	.62	.62	.73			.51	.51				
S310	.47	.70	.70	.81			.59	.59	.70	.58	.69	
S312	.54	.79	.79	.90			.67	.67	.79	.65	.79	
S315	.67	.99	.99	1.09	.96	.67	.85	.85	.96			.96
S318	.81	1.18	1.18	1.28	1.14	.81	1.04	1.04	1.14			1.14
S321	.99	1.37	1.37	1.48	1.33	.99	1.23	1.23	1.33			1.33
S324	1.18	1.61	1.61	1.71	1.56	1.18	1.48	1.48	1.57			1.56
S327	1.36	1.80	1.80	1.90	1.75	1.37	1.66	1.66	1.76			1.75
S330	1.56	2.08	2.08	2.18	1.98	1.56	1.90	1.90	1.99			1.98
S333	1.75	2.22	2.22	2.32	2.17	1.75	1.98	1.98	2.18			2.17



400 Series Plugs and Sockets

Current Capacity—15 Amps—1,100 Volts Rms

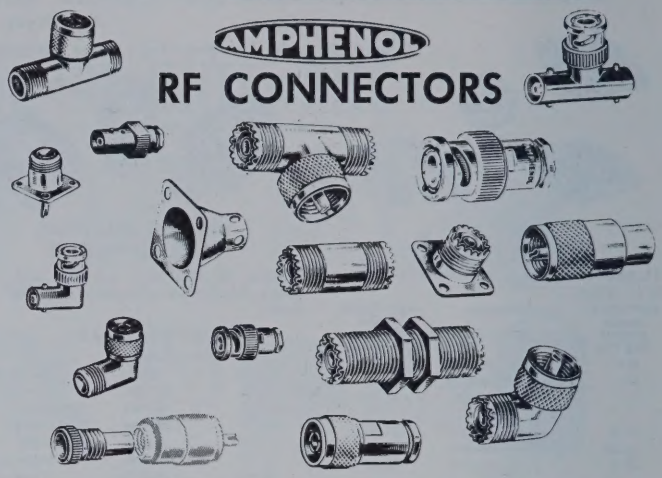
Catalog No.	Type AB Net Ea.	Type CCE Net Ea.	Type CCT Net Ea.	Type DB Net Ea.	Type FHE Net Ea.	Type FHT Net Ea.	Type LAB Net Ea.	Type SB Net Ea.
P402	$ .43	$ .67	$ .67	$ .51	$ .49	$ .49	$ .24	$ .51
P404	.51	.80	.81	.67	.62	.62	.33	.67
P406	.62	.95	.95	.80	.76	.76	.43	.80
P408	.73	1.08	1.08	.95	.89	.89	.51	.95
P410	.80	1.21	1.21	1.09	1.04	1.04	.63	1.09
P412	.89	1.36	1.36	1.22	1.17	1.17	.73	1.22
S402	.49	.73	.73	.58	.53	.53	.29	.58
S404	.63	.90	.90	.75	.72	.72		
S406	.75	1.09	1.09	.95	.90	.90	.58	.90
S408	.89	1.27	1.27	1.13	1.09	1.09	.73	1.13
S410	1.04	1.47	1.47	1.31	1.27	1.27	.84	1.31
S412	1.17	1.66	1.66	1.50	1.47	1.47	.99	



500 Series Plugs and Sockets

Current Capacity—25 Amps—3,000 Volts Rms

Catalog No.	Type CE With Cap. Net Ea.	Type DB Deep Bracket Net Ea.	Type SB Shallow Bracket Net Ea.
P502	$2.05	$1.80	$1.80
P504	2.95	2.58	2.58
P506	3.84	3.35	3.35
P508	4.74	4.14	4.14
P510	5.64	4.91	4.91
P512	6.55	5.69	5.69
S502	2.05	1.80	1.80
S504	2.95	2.58	2.63
S506	3.84	3.35	3.35
S508	4.74	4.14	4.14
S510	5.64	4.91	4.91
S512	6.55	5.69	5.69



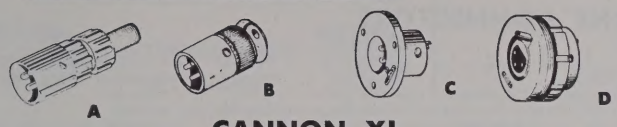
AMPHENOL RF CONNECTORS

Military No.	AMPHENOL No.	Net Ea.
UG-18B/U	82-86	$2.35
UG-18C/U	82-203	2.76
UG-19B/U	82-87	2.25
UG-19C/U	82-207	2.29
UG-20B/U	82-88	2.00
UG-20C/U	82-210	2.06
UG-21B/U	82-61	2.06
UG-21C/U	82-96	2.29
UG-21D/U	82-202	2.70
UG-22B/U	82-62	2.06
UG-22C/U	82-95	1.82
UG-22D/U	82-208	2.18
UG-23B/U	82-63	1.59
UG-23C/U	82-94	2.23
UG-23D/U	82-209	2.00
UG-27A/U	82-64	3.41
UG-27B/U	82-98	3.71
UG-27C/U	82-213	4.35
UG-28A/U	82-99	3.76
UG-29A/U	82-65	1.70
UG-29B/U	82-101	2.35
UG-30/U	82-66	1.94
UG-30C/U	82-201	5.53
UG-57B/U	82-100	3.36
UG-58/U	82-24	1.35
UG-58A/U	82-97	1.23
UG-59A/U	82-38	2.59
UG-59B/U	82-804	$3.17
UG-60A/U	82-39	2.82
UG-60B/U	82-814	2.59
UG-61A/U	82-40	3.00
UG-61B/U	82-815	3.35
UG-85/U	82-21	1.06
UG-87/U	82-42	1.29
UG-88/U	31-002	1.29
UG-88B/U	31-018	1.23
UG-88C/U	31-202	1.94
UG-89/U	31-005	1.29
UG-89A/U	31-019	
UG-89B/U	31-205	1.76
UG-94A/U	82-84	2.53
UG-95A/U	82-89	1.82
UG-96A/U	82-90	2.06
UG-102/U	83-22SP	1.00
UG-103/U	83-22R	1.12
UG-104/U	83-22AP	1.88
UG-105/U	83-22J	1.47
UG-106/U	83-1H	.29
UG-107A/U	82-36	5.35
UG-107B/U	82-102	3.65
UG-111/U	83-750	1.06
UG-154/U	82-59	11.76
UG-160A/U	82-67	2.35
UG-160B/U	82-93	2.35
UG-167A/U	82-104	$4.74
UG-167C/U	82-206	5.88
UG-175/U	83-185	.18
UG-176/U	83-185	.18
UG-177/U	83-765	.29
UG-196/U	83-22T	2.82
UG-201/U	31-830	3.12
UG-201A/U	31-216	2.53
UG-203/U	83-776	.88
UG-204A/U	82-105	2.76
UG-204B/U	82-205	3.17
UG-212A/U	82-91	2.41
UG-212C/U	82-115	4.00
UG-254A/U	31-016	2.94
UG-260/U	31-012	1.35
UG-260A/U	31-021	1.59
UG-260B/U	31-212	2.12
UG-261/U	31-015	1.59
UG-261A/U	31-022	1.35
UG-261B/U	31-215	1.70
UG-262/U	31-011	1.41
UG-262A/U	31-023	
UG-262B/U	31-211	1.41
UG-273/U	31-028	2.18
UG-274/U	31-008	4.17
UG-274A/U	31-208	2.29
UG-290/U	31-003	1.29
UG-290A/U	31-203	$1.76
UG-291/U	31-001	1.41
UG-291A/U	31-020	1.41
UG-291B/U	31-201	1.47
UG-306/U	31-009	2.47
UG-306A/U	31-209	
UG-333/U	82-56	6.35
UG-333A/U	82-107	6.17
UG-334/U	82-57	7.70
UG-334A/U	82-108	5.64
UG-349A/U	31-217	2.94
UG-352/U	82-80	7.23
UG-352A/U	82-110	6.29
UG-357/U	83-21R	1.47
UG-358/U	83-21SP	2.35
UG-360/U	83-21J	1.76
UG-363/U	83-1F	.35
UG-372/U	83-1HP	1.35
UG-447/U	31-817	2.76
UG-491A/U	31-218	3.18
UG-492A/U	31-220	6.53
UG-495A/U	82-111	1.41
UG-496/U	82-92	
UG-535A/U	31-213	
UG-560/U	82-805	2.65
UG-564/U	82-508	2.82
UG-565A/U	82-540	3.53
UG-566A/U	82-536	5.59
UG-567A/U	82-535	$5.23
UG-568/U	82-504	1.76
UG-569/U	82-505	2.41
UG-570/U	82-502	2.94
UG-571/U	82-501	2.29
UG-572/U	82-503	2.18
UG-573A/U	82-530	3.72
UG-625A/U	31-214	1.47
UG-628A/U	82-532	4.00
UG-632/U	82-521	3.06
UG-634/U	82-515	3.06
UG-643/U	81-514	2.35
UG-646/U	81-1AP	1.65
UG-657/U	31-102	1.70
UG-680/U	82-811	
UG-705/U	82-511	3.23
UG-707A/U	82-533	5.00
UG-709A/U	82-534	3.41
UG-710A/U	82-531	6.17
UG-909/U	31-206	2.12
UG-910/U	31-207	2.23
UG-913/U	31-204	4.12
UG-914/U	31-219	1.88
UG-929/U	82-114	
UG-935A/U	82-211	2.53
UG-937/U	82-522	3.29
UG-938/U	82-523	2.59
UG-939/U	82-524	$3.47
UG-940A/U	81-212	2.59
UG-941A/U	82-204	3.06
UG-942A/U	82-539	4.35
UG-943A/U	82-538	4.06
UG-944/U	82-526	2.70
UG-945A/U	82-537	6.41
M-358	83-1T	1.88
M-359	83-1AP	1.65
M-359A	83-58	1.76
M-360	83-1H	.29
M-365	83-2H	.53
PL-258	83-1J	1.00
PL-259	83-1SP	.76
PL-259A	83-1SPN	.88
PL-274	83-1F	1.76
PL-275	83-22F	2.18
PL-284	83-22SP	1.00
PL-285	83-22J	1.47
PL-293	83-22AP	1.88
PL-295	83-2SP	2.47
PL-305	83-2J	2.23
SO-239	83-1R	.71
SO-264	83-22R	1.12
SO-265	83-2R	1.76
49188	83-2SP	2.47
49189	83-2J	2.23
49190	83-1SP	$ .76
49191	83-1J	1.00
49192	83-1AP	1.65
49192A	83-58	1.76
49193	83-1H	.29
49194	83-1R	.71
49195	83-1SPN	.88
49196	83-2R	1.76
49199	83-1T	1.88
49208	83-2H	.53
49267	82-64	3.41
49470	82-24	1.35
49482	83-776	.88
491049	83-1F	1.76
CW-123/U	31-006	.53
CW-123A/U	31-026	.59
CW-155/U	31-007	.41
CW-155A/U	31-027	.41
CW-159/U	31-017	.88
CW-282/U	31-210	.53
MX-103/U	103-301	9.70
MX-564/U	82-48	.76
MX-564A/U	82-109	.88
MX-913/U	82-106	.71
MX-1142/U	82-512	1.29
MX-1143/U	82-513	.71
MX-1286/U	82-517	.71

Sun Radio is an authorized stocking industrial distributor for these popular Connectors. From stock delivery.

AMPHENOL

SUN RADIO — for prompt service and lowest prices on all your Amphenol requirements.



CANNON XL

Microphone Plugs and Receptacles

Three and four contact polarized connectors for low level sound transmission circuits. Latch-lock device for positive connection. Shells zinc, nickel finish, except where noted. Steel shell types have 15 amp.-250V contacts.

Type	Fig.	3-Contact Cat. No.	Net Ea.	4-Contact Cat. No.	Net Ea.
Male Plug	A	XL3-12	$ .90	XL4-12	$1.20
Male Plug Steel Shell	B	XL3-12SC	2.01	XL4-12SC	2.31
Female Plug	A	XL3-11	.93	XL4-11	1.29
Female Plug Steel Shell	B	XL3-11SC	2.04	XL4-11SC	2.40
Male Chassis Mount	C	XL3-14	.72	XL4-14	1.02
Male Panel Mount	D	XL3-14N	.87	XL4-14N	1.17
Female Chassis Mount	C	XL3-13	.93	XL4-13	1.29
Female Panel Mount	D	XL3-13N	.93	XL4-13N	1.29

AMPHENOL SERIES 26

Miniature Hexagon Connectors

For interconnection of miniature electronic equipment; interchangeable hardware and contacts. 1-501 dielectric, gold-plated contacts; all hardware is solid brass, nickel-plated.

Contacts	With Hex. Nut	Net Ea.	With Locking Clip	Net Ea.	With Hood & Clamp	Net Ea.
4 pin	— —		26-214	$ .96	— —	
4 socket	— —		— —		26-215	$1.57
5 pin	26-010	$ .76	26-216	.82	26-217	1.38
5 socket	26-011	1.20	26-218	1.26	26-223	1.79
7 pin	26-191	1.71	26-197	.99	26-195	1.52
7 socket	26-192	1.14	26-198	1.73	26-196	2.29
9 pin	26-012	.88	26-219	1.04	26-220	1.59
9 socket	26-013	2.07	26-221	2.12	26-222	2.65

AMPHENOL SERIES 27

Subminax R.F. Connectors

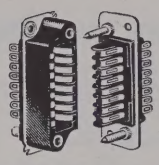
Subminax connectors are the smallest connectors ever offered for R.F. applications. Available in both screw-on and push-on types in both 50 and 75 ohm impedances. For best results, subminax connectors are assembled to Amphenol-designed subminiature coaxial cable. The table below indicates matching cable and connector types. Assembly can be done at your factory with the three Crimping Tools described below:

	AMPHENOL Number	Description	For AMPHENOL Cables	Dielectric Material	Net Ea.
50 ohm Push-on	27-1	Plug	21-596, 21-598 (RG-174 U)	Teflon	$ .91
	27-2	Jack	21-596, 21-598 (RG-174 U)	Teflon	.91
	27-3	Receptacle		Teflon	.94
	27-4	Jack, Bulkhead	21-596, 21-598 (RG-174 U)	Teflon	1.09
	27-5	Feed Through		Teflon	1.47
50 ohm Screw-on	27-7	Plug	21-596, 21-598 (RG-174 U)	Teflon	.82
	27-8	Jack	21-596, 21-598 (RG-174 U)	Teflon	.88
	27-9	Receptacle		Teflon	.94
	27-10	Jack, Bulkhead	21-596, 21-598 (RG-174 U)	Teflon	1.00
	27-11	Feed Through		Teflon	1.62
	27-12	Receptacle, Hermetic		Glass-Teflon	2.20
75 ohm Push-on	27-13	Plug	21-597	Teflon	1.12
	27-14	Jack	21-597	Teflon	1.12
	27-15	Receptacle		Teflon	1.12
	27-16	Jack, Bulkhead	21-597	Teflon	1.47
	27-17	Feed Through		Teflon	1.56
75 ohm Screw-on	27-19	Plug	21-597	Teflon	1.03
	27-20	Jack	21-597	Teflon	1.00
	27-21	Receptacle		Teflon	1.09
	27-22	Jack, Bulkhead	21-597	Teflon	1.32
	27-23	Feed Through		Teflon	1.59
	27-24	Receptacle, Herc.		Glass-Teflon	2.41

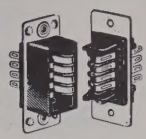
Crimping Tool No.	Use With Conn. No.	Net Ea.
27-900	27-1, 27-2, 27-4, 27-7, 27-8, 27-10	$12.50
27-901	27-16, 27-19, 27-20, 27-22, 27-13, 27-14	12.50
*27-902	27-13, 27-14	1.40

*27-902 is a tool insert for use with #27-901 Tool

Please call on us for your quantity requirements of Amphenol Connectors. SUN RADIO is an authorized industrial distributor, qualified to quote quantity price.



AMPHENOL SERIES 26



Blue Ribbon Connectors

These unique spring-ribbon contact connectors are finding increasing popularity throughout every part of the electronics industry As a result of continuing AMPHENOL development work the Blue Ribbon line has been expanded to include keyed shells and latch-lock type cans—the complete line now offers the following outstanding features:

- Visual alignment is not required; ideal for multi-circuit connection, switching or re-routing.
- Spring contacts provide quick disconnect with low insertion and withdrawal force requirements.
- Insert material is famous AMPHENOL diallyl phthalate blue which meets government specifications MIL-P-4389 and MIL-P-14D.
- Contacts are finished with gold over a silver plate, will not corrode, are easy to solder.
- Molded-in mounting plates are corrosion resistant passivated stainlses steel.
- Available in latch-lock cans for cable-to-chassis applications.

Pin Polarization

Contacts	Plugs	Net Ea.	Mating Receptacles	Net Ea.
16	26-159-16	$ .76	26-190-16	$2.20
24	26-159-24	2.14	26-190-24	2.66
32	26-159-32	2.51	26-190-32	3.14

Barrier Polarization

Contacts	Plugs	Net Ea.	Mating Receptacles	Net Ea.
8	26-182	$ .80	26-183	$1.48
8	26-4100-8P	1.29	26-4200-8S	1.59
16	26-4100-16P	2.11	26-4200-16S	2.60
24	26-4100-24P	2.53	26-4200-24S	2.83
32	26-4100-32P	3.05	26-4200-32S	1.93

Barrier Polarization With Keyed Shells

Contacts	Shell Keys Letters	Shell Keys Numbers	Plugs	Net Ea.	Mating Receptacles	Net Ea.
8	A	1	26-4101-8P	$ .50	26-4201-8S	$2.14
8	A	2	26-4102-8P	1.50	26-4202-8S	2.14
16	A-C	3-6	26-4101-16P	2.45	26-4201-16S	3.25
16	A-D	2-5	26-4102-16P	2.45	26-4202-16S	3.25
24	A-C	3-6	26-4101-24P	2.85	26-4201-24S	3.60
24	A-D	4-7	26-4102-24P	2.85	26-4202-24S	3.60
32	A-C	3-6	26-4101-32P	3.24	26-4201-32S	4.79
32	A-D	4-7	26-4102-32P	3.24	26-4202-32S	4.79

Voltage Ratings: 5 Amp.

Pin Polarization	Barrier Polarization
750 Volts D.C. at Sea Level	800 Volts D.C. at Sea Level
300 Volts D.C. at 60,000 Feet Alt.	300 Volts D.C. at 70,000 Feet Alt.

AMPHENOL SERIES 26

Rack and Panel Connectors

Versatile group available in 11, 15 and 20 contacts, with or without protective can and cable clamp. Rated at 900 volts RMS, 60 CPS at sea level. Bodies mica-filled phenolic; contacts gold-plated.

Description	Contacts No. 16	Contacts No. 20	Mounting Screw Size	AMPHENOL Number Insert Only	Net Ea.	AMPHENOL Number With Can	Net Ea.
Male	2	9	No. 4	26-804	$1.05	26-809	$1.76
Female	2	9	No. 4	26-805	.88	26-808	1.53
Male	3	12	No. 6	26-151	1.35	26-152	2.06
Female	3	12	No. 6	26-150	.94	26-153	1.65
Male	4	16	No. 4	26-806	1.94	26-811	2.76
Female	4	16	No. 4	26-807	1.59	26-810	2.41
Male	20	— —	No. 4	26-813	2.62	— —	
Female	20	— —	No. 4	26-812	1.47	— —	

AMPHENOL SERIES 26

Miniature Rectangular Connectors

Four types of miniature rack and panel connectors offer a large selection of multiple contacts. Contacts and polarizing pins are gold-plated; bodies are melamine. Four types, A, B, C, and D, differ in voltage rating and insertion and withdrawal force requirements.

Type	AMPHENOL Number	Contacts	Voltage Rating	Current Rating Amperes	Insertion Force (Max.)	Withdrawal Force (Min.)	Net Ea.
A	26-016	7 pin	600-750	17	15#	2#	$ .88
	26-017	7 socket					1.78
	26-204	15 pin					1.78
	26-205	15 socket					3.53
B	26-206	18 pin	600-750	17	40#	4#	2.08
	26-207	18 socket					5.12
C	26-173	14 pin	600	7.5	25#	2#	1.94
	26-174	14 socket					3.53
	26-199	18 pin					2.18
	26-189	18 socket					3.65
	26-171	21 pin					2.68
	26-172	21 socket					4.67
D	26-188	34 pin	600	7.5	25#	2#	5.66
	26-187	34 socket					6.00

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Sun Radio & ELECTRONICS CO. INC.

AMPHENOL MICROPHONE CONNECTORS

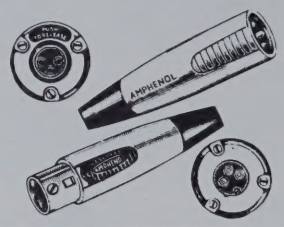
MODERN DESIGN QWIKS

Newest, most efficient, most attractive connectors ever offered for microphone use. Gold-plated contacts, 1-501 Blue dielectric, satin-nickel finish contribute to the beauty, the efficient performance of the new QWIKs. Instant connect, disconnect—just click them in!

Three Contacts AMPHENOL Number	Description	Four Contacts AMPHENOL Number
91-853	Male plug	91-857
91-854	Female plug	91-858
91-855	Male receptacle	91-859
91-856	Female receptacle	91-860

QWIK MICROPHONE CONNECTORS

Cat. No.	Net Ea.	Net Ea. Per 50
91-853	.93	.78
91-854	1.14	.95
91-855	.69	.58
91-856	1.38	1.15
91-857	.93	.78
91-858	1.26	1.05
91-859	.69	.58
91-860	1.53	1.28



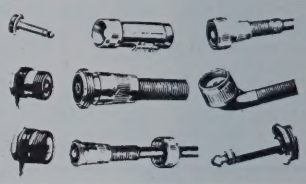
SERIES 75

Coupling-ring connectors available with a complete line of accessory fittings. Easy to use, versatile in application, these connectors provide mating connections at every junction through the use of slip-off, slip-on coupling rings. Single contact.

AMPHENOL Number	Description
75-CCC1	Cap and chain
75-MC1F	Straight plug
75-MC1FA	Angle plug
75-MC1M	Cable jack
75-MC1P	Phone plug adapter
75-MC1S	Microphone switch
75-PC1M	Locknut receptacle
75-CL-PC1M	Locknut receptacle closed circuit

MICROPHONE CONNECTORS — SERIES 75

Cat. No.	Net Ea.	Net Ea. Per 50
75-CCC1	.25	.21
75-MC1F	.31	.265
75-MC1FA	.63	.53
75-MC1M	.21	.175
75-MC1P	.31	.26
75-MC1S	1.10	.92
75-PC1M	.22	.19
75-CL-PC1M	.34	.285



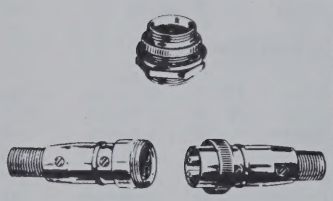
SERIES 80

One and two contact connectors designed for microphone applications; assure positive connections free from noise, leaks or shorts.

One Contact AMPHENOL Number	Description	Two Contact AMPHENOL Number
80-M	Male plug	80-MC2M
80-F	Female jack	80-MC2F
80-C	Female receptacle	80-PC2F
80-F1	Female plug	80-MC2F1
80-M1	Male jack	80-MC2M1
80-C1	Male receptacle	80-PC2M

SERIES 80 MICROPHONE CONNECTORS

Cat. No.	Net Ea.	Net Ea. Per 50
80-C	.35	.29
80-F	.38	.32
80-M	.43	.36
80-C1	.35	.29
80-F1	.45	.38
80-M1	.37	.31
80-MC2F	.40	.34
80-MC2M	.45	.38
80-PC2F	.37	.31
80-MC2F1	.49	.41
80-MC2M1	.37	.31
80-PC2M	.35	.29



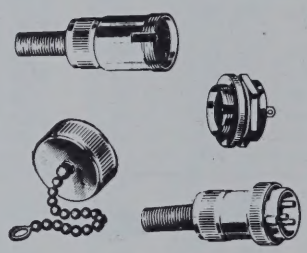
SERIES 91

Three and four contact connectors for audio or any type of portable sound equipment. Screw-on connection. Connectors polarized.

Three Contacts AMPHENOL Number	Description	Four Contacts AMPHENOL Number
91-MC3M	Male plug	91-MC4M
91-MC3F	Female jack	91-MC4F
91-PC3F	Female receptacle	91-PC4F
91-MC3F1	Female plug	91-MC4F1
91-MC3M1	Male jack	91-MC4M1
91-PC3M	Male receptacle	91-PC4M

SERIES 91 MICROPHONE CONNECTORS

Cat. No.	Net Ea.	Net Ea. Per 50
91-CCC3	.28	.24
91-MC3F	.65	.54
91-MC3M	.65	.54
91-MC4F	.68	.57
91-MC4M	.67	.56
91-PC3F	.52	.43
91-PC4F	.53	.45
91-MC3F1	.72	.60
91-MC3M1	.60	.50
91-MC4F1	.73	.61
91-MC4M1	.62	.52
91-PC3M	.50	.42
91-PC4M	.50	.42



AMPHENOL POWER CONNECTORS

Plug Jack Receptacle

HEAVY DUTY POWER PLUGS

These compact and lightweight power connectors are built to stand rough handling. Ideal for garage and factory service and for connecting all types of electrical appliances and machinery. Black bakelite elements are encased in a heavy drawn-brass cadmium plated shell. Extra heavy flat blade brass prongs and phosphor bronze contacts will handle 15 amps. at 125 volts or 10 amps. at 250 volts. For higher current capacity or where more than four conductors are needed, see "AN" connectors

NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION
92-M	Male Plug	92-F	Female Jack	92-C	Female Receptacle
92-F1	Female Plug	92-M1	Male Jack	92-C1	Male Receptacle

Mating parts are in the same horizontal line.

HEAVY DUTY POWER PLUGS

Cat. No.	Net Ea.	Net Ea. Per 50	Cat. No.	Net Ea.	Net Ea. Per 50
92-C	1.35	1.13	92-C1	1.35	1.13
92-F	1.52	1.27	92-F1	1.73	1.45
92-M	1.63	1.36	92-M1	1.43	1.20

PROTECTIVE CAP AND CHAIN

For sealing power plugs and radio connectors against dirt and tampering. Heavy brass cap, chrome plated. Nickel silver bead chain.

79-CCC-8 Cap and Chain

Plug Jack Receptacle

HEAVY DUTY RADIO CONNECTORS

For Positive, Safe Cable Connection

Completely encased in a heavy drawn-brass cadmium-plated shell, connectors are entirely free of shock hazard and will not radiate RF. Black bakelite elements are designed for high frequency, high voltage work and polarized according to RMA standards for tube sockets. In addition, polarized shell permits four different element positions for added circuit protection. The 8 and 12 contact connectors follow the octal style.

Use these connectors freely for the toughest jobs.

	PLUG		JACK		RECEPTACLE	
Contacts	Male	Female	Female	Male	Female	Male
4	**79-04M**	79-04F1	**79-04F**	79-04M1	**79-P04F**	79-P04M
5	**79-05M**	79-05F1	**79-05F**	79-05M1	**79-P05F**	79-P05M
6	**79-06M**	79-06F1	**79-06F**	79-06M1	**79-P06F**	79-P06M
8	**79-08M**	79-08F1	**79-08F**	79-08M1	**79-P08F**	79-P08M
12	**79-012M**	79-012F1	**79-012F**	79-012M1	**79-P012F**	79-P012M

Plugs shown in bold face type mate with jacks and receptacles listed in bold face in the same horizontal line. Numbers in light face follow the same procedure.

HEAVY DUTY RADIO CONNECTORS

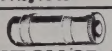
Cat. No.	Net Ea.	Net Ea. Per 50	Cat. No.	Net Ea.	Net Ea. Per 50
79-CCC8	.27	.23			
79-04M	1.45	1.21	79-04F1	1.45	1.21
79-05M	1.40	1.17	79-05F1	1.44	1.20
79-06M	1.40	1.17	79-06F1	1.45	1.21
79-08M	1.47	1.23	79-08F1	1.50	1.25
79-012M	1.50	1.25	79-012F1	1.55	1.29
79-04F	1.27	1.06	79-04M1	1.27	1.06
79-05F	1.24	1.03	79-05M1	1.20	1.00
79-06F	1.25	1.04	79-06M1	1.22	1.02
79-08F	1.32	1.10	79-08M1	1.28	1.07
79-012F	1.37	1.14	79-012M1	1.32	1.10
79-P04F	1.05	.88	79-P04M	1.10	.92
79-P05F	.98	.82	79-P05M	1.00	.84
79-P06F	1.00	.84	79-P06M	1.00	.84
79-P08F	1.12	.93	79-P08M	1.09	.91
79-P012F	1.17	.98	79-P012M	1.12	.93

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

SWITCHCRAFT "LITTEL-JAX"

"Littel-Jax" identifies the sensationally new line of phone jacks designed and manufactured by Switchcraft. An improved design to meet present day requirements; leading project engineers specify "Littel-Jax."

PART NO.	DESCRIPTION	SCHEMATIC CIRCUIT	Net Ea.
11	Open Circuit—2 Conductor		$ .23
C 11	Open Circuit—2 Conductor JAN Type JJ-034 (Old JK-34A)		.35
S-11	Open Circuit—2 Conductor .210" I.D. Sleeve—use S250 Plug		.26
12-A	Single Closed Circuit—2 Conductor		.26
C-12A	Single Closed Circuit—2 Conductor JAN Type JJ-089		.44
12-B	Open Circuit—3 Conductor		.32
S-12B	Same as 12B except Bushing .208S" I.D. to Fit W. E. Plug 109 and Signal Corps Plug PL-68		.35
C-12B	Open Circuit—3 Conductor JAN Type JJ-033 (Old JK-33A)		.41
13B	Single Closed Circuit—3 Conductor		.44
S-13B	Same as 13B except to fit W. E. Plug 109 and Signal Corps Plug PL-68		.53



SWITCHCRAFT EXTENSION JAX

Available in both 2- and 3-conductor types, solder lug or screw type terminals. Terminals mechanically interlock preventing any shifting of the assembly. High grade insulation throughout.

		Net Ea.
Two-conductor; Black Handle. Screw Type Terminals	80	$ .68
Two-conductor; Black Handle. Solder Lug Terminals	88	.59
Two-conductor; Shielded Handle. Screw Type Terminals	120	.91
Two-conductor; Shielded Handle. Solder Lug Terminals	128	.82
Three-conductor; Black Handle. Screw Type Terminals	830	.91
Three-conductor; Black Handle. Solder Lug Terminals	838	.82
Three-conductor; Shielded Handle. Screw Type Terminals	1230	1.15
Three-conductor; Shielded Handle. Solder Lug Terminals	1238	1.06
Special Two-conductor; Shielded Handle. Solder Lug Terminals—Sleeve I.D. .210" to mate with S-250 or S-280 "Littel-Plugs"	S-128	.88

SWITCHCRAFT "SF" & "LF-JAX"

"SF-JAX"

A short frame supporting the springs in a plane parallel to the mounting surface. A rugged design, featuring:

"LF-JAX"

A long frame supporting the springs in a plane perpendicular to the mounting surface. The simple direct action of the mating plug with the long springs insures maximum spring life.

"SF-JAX" PART NO.	Net Ea.	"LF-JAX" PART NO.	Net Ea.	SCHEMATIC CIRCUIT
21	$ .32	31	$ .38	
22	.41	32	.50	
22A	.41	32A	.50	
22B	.41	32B	.50	
23	.50	33	.56	
23A	.50	33A	.56	
23B	.50	33B	.56	
23C	.50	33C	.56	
23E	.50	33E	.56	
24	.56	34	.65	
24A	.56	34A	.65	
24B	.56	34B	.65	
25	.68	35	.73	
26	.73	36	.82	

"SHIELDED JAX"

A unique modification of the "Littel-Jax" the shield is assembled into and made a part of the Jack. After the leads have been soldered to the Jack terminals, the cover snaps tightly into the mating housing.

Ideal where it is desirable to use a phone Jack in a high impedance circuit where effective shielding is essential.

"SHIELDED JAX"

DESCRIPTION	PART NO.	Net Ea.
"Littel-Jax"—Same as No. 11	CN-11	$ .48
"Littel-Jax"—Same as No. 12A	CN-12A	.50
"Little-Jax"—Same as No. 12B	CN-12B	.56
"Littel-Jax"—Same as No. 13B	CN-13B	.68

SWITCHCRAFT "T & M JAX"

"T-JAX"

A long frame type, most commonly referred to as a Telephone Jack, designed especially for high quality communication equipment and to meet the exacting specifications of the Armed Services.

"T-JAX" PART NO.	SIMILAR JAN TYPE NO.	SCHEMATIC CIRCUIT	Net Ea.
T-331			$ .62
T-332A			.71
T-332B			.71
T-334A			.88
T-334B			.94
T-334C			.88

"M-JAX"

A very heavy Long Frame Jack, usually referred to as the Navy Jack, designed especially for industrial equipment and to meet the critical requirements of the Military.

"M-JAX"			Net Ea.
M-441			$ .88
M-442A	JJ-107		1.00
M-443A	JJ-105		1.15
M-443B	JJ-106		1.23
*M-444	JJ-083		1.35
M-444B	JJ-082		1.29
M-445	JJ-104		1.62
M-446	JJ-079		2.06
M-446A	JJ-081		2.29

*Bushing .2085"; to mate with plugs PJ-068 and PJ-309

"SF-JAX"

"SF-JAX" (NME Types) Series C20 and C50

A short frame design, similar to SF-JAX except these are JAN Types made in accordance to Military Specifications.

PART NO.	JAN TYPE NO.	SCHEMATIC CIRCUIT	Net Ea.
C23	JJ-099		$ .71
C23A	JJ-098		.71
C23E	JJ-102		.71
C51	JJ-096		.71
C52A	JJ-097		.71
C52B	JJ-103		.71
C53A	JJ-092		.91
C54A	JJ-093		.94
C54B	JJ-101		.94
C55B	JJ-095		1.09

SWITCHCRAFT INC.

"Mini-mix"

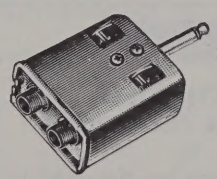
Miniature 2-INPUT AUDIO MIXER

Ideal for use with Tape, Wire or Disc Recorders; Amplifiers, Musical Instruments, etc.

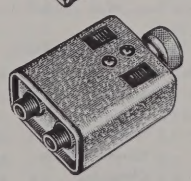
Accommodates two high impedance inputs.

Separate Gain Controls: Recessed inside housing—eliminate bothersome projections. Located directly in line with inputs eliminate confusion.

- Weighs approximately 3 ounces—small size.
- Connects directly to equipment—no external cables.
- Minimum lead lengths inside shielded housing.
- Brown finished case—nickel plated accessories.

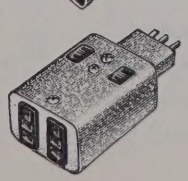


"MINI-MIX"
Part No. 310
Phone Jack inputs with Phone Plug output fitting standard jacks.
$4.67 Net Ea.



"MINI-MIX"
Part No. 315
Phone Jack inputs with Microphone Connector Output mating with standard mic connectors or No. 44 Adapter.
$4.67 Net Ea.

"MINI-MIX"
Part No. 320
Microphone connector inputs and output mating standard mic connectors. **$4.67 Net Ea.**



"MINI-MIX"
Part No. 325
For use with recorders and amplifiers using Jones type Connectors. Fits recessed Connectors such as used by Webcor Tape Recorders.
$5.85 Net Ea.

$2.20 Net Ea.

Cable Assembly
Used as Adapter for No. 310 "Mini-Mix" where equipment Jack is recessed. 1-foot long 2-conductor cable (single cond. and shield); No. 128 "Extension Jax" to No. 280 "Littel Plug".

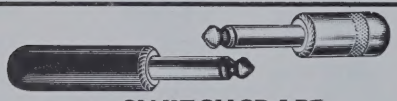
650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

SWITCHCRAFT
"LITTEL PLUGS"

SWITCHCRAFT'S engineers, backed by years of experience, have brought forth in the "Littel-Plug" the first really new development in phone plug design in more than a decade.

DESCRIPTION	PART NO.	Net Ea.
Two-conductor; Screw Term. Black Tenite Handle	240	$ .44
Two-conductor; Screw Term. Red Tenite Handle	245	.44
Two-conductor; Solder Lug Term. Black Tenite Hdle.	250	.41
Two-conductor; Solder Lug Term. Red Tenite Hdle.	255	.41
Two-conductor; Screw Term. Shield Type Handle	270	.62
Two-conductor; Solder Lug Terminals. Shield Type Handle	280	.59
Three-conductor; Screw Terminals. Black Tenite Handle	260	.71
Three-conductor; Combination Clamp and Solder Lug Terminals. Black Tenite Handle	267	.62
Three-conductor; Combination Clamp and Solder Lug Terminals. Red Tenite Handle	269	.62
Three-conductor; Screw Terminals. Shield Type Handle	290	.82
Three-conductor; Combination Clamp and Solder Lug Terminals. Shield Type Handle	297	.76
Special Two-conductor; Shielded Type. A wide insulator between tip and sleeve makes possible its use as 2-conductor plug in a 3-conductor Jack without shorting.	288	.62
Special Two-conductor; Solder Lug Terminals Black Tenite Handle. .206" Dia. sleeve and tip	S-250	.44
Special Two-conductor; Solder Lug Terminals Shielded Handle. .206" Dia. sleeve and tip	S-280	.59



SWITCHCRAFT
LUG PLUGS

Similar in design to the "Littel-Plug" except two small solder lug terminals.

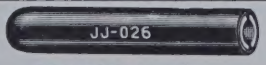
		Net Ea.
350	Two-conductor; Solder Lug Terminals. Black Tenite Handle.	$ .32
355	Two-conductor; Solder Lug Terminals. Red Tenite Handle.	.32
380	Two-conductor; Solder Lug Terminals. 1" long Shielded Handle	.41

SWITCHCRAFT
NME DESIGN

"LITTEL-PLUGS AND JAX"

Designed especially for high quality communication equipment and to meet the exacting requirements of the armed services.

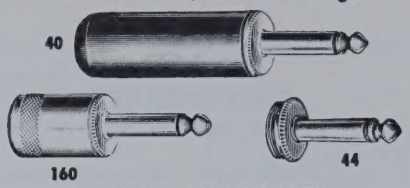
PART NO.	DESCRIPTION	Net Ea.
410	Two conductor—Solder Cup—Type PJ-291 (Old Signal Corps No. PL-291)—Mates with No. 810 (JJ-048) Jack	$ .36
*430	Two-conductor — Screw Terminals. Dimension "A" 1/4"—Black Plastic Handle—Type PJ-054B (Old Signal Corps No. PL-54)	.82
*435	Same as No. 430, except Red Plastic Handle—Type PJ-054R (Old Signal Corps No. PL-354)	.82
440	Two-conductor—Screw Terminals—Black Plastic Handle—Type PJ-055B (Old Signal Corps No. PL-55)	.82
445	Two-conductor—Screw Terminals—Red Plastic Handle—Type PJ-055R	.82
*450	Same as No. 430, except—Type PJ-540B Dimension "A" 9/32" (13/32" deep). †Old Signal Corps No. PL-540) Black Plastic Handle	.82
*455	Same as No. 435, except—Type PJ-540R Dimension "A" 9/32" (13/32" deep) Red Plastic Handle	.82
470	Two-conductor—Screw Terminals—Shielded Handle —Type PJ-055M (Old Signal Corps No. PL-125)	1.18
480	Three-conductor—Screw Terminals — Black Plastic Handle—Type PJ-068 (Old Signal Corps No. PL-68)	2.12



"EXTENSION JAX"

810	Two-conductor—Solder Lug — Type JJ-048 (Old Signal Corps No. JK-48), mates with No. 410 (PJ-291) Plug	$ .48
820	Two-conductor—Screw Terminals—Black Plastic Handle—Type JJ-026 (Old Signal Corps No. JK-26)	1.18

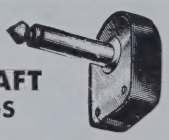
*Mates with No. 820 (JJ-026) "Extension Jax"



SWITCHCRAFT
PHONE PLUGS

A very popular general purpose plug to fit all standard jacks is available in both 2- and 3-conductor types.

PART NO.	DESCRIPTION	Net Ea.
40	Two Conductor—2 1/16" Long—Bakelite Handle	$ .42
44	Adapter—2 Conductor (as described in drawing)	.30
70	Two Conductor—2 1/16" Long—Shielded Handle	.70
160	Two Conductor—1" Long—Shielded Handle	.53
189	Special Two Conductor—1" Long—Shielded Handle. A 19 64" wide insulator assembled between tip and sleeve makes possible its use as Two Conductor Plug in 3-Conductor Jacks without shorting the ring sleeve of the jack to the bushing.	.62
60	Three Conductor—Tip, Ring, and Sleeve Circuits 2 1/16" Long Bakelite Handle.	.62
90	Three Conductor—Tip, Ring, and Sleeve Circuits 1" Long Shielded Handle.	.76
475	Two Conductor — Shielded Handle Jan Type PJ-636. Similar No. 70 except two-piece handle with built-in cable clamp. Handle 1 3 4" long.	1.15



SWITCHCRAFT
FLAT PLUGS

A radically new design, with many important features, in both 2- and 3-conductor types.

An ideal plug for use in equipment where the conventional long handled plug may interfere with proper usage of that equipment

DESCRIPTION	PART NO.	Net Ea.
Two-conductor; Black Handle. Screw Type Terminals	220	$ .44
Two-conductor; Red Handle. Screw Type Terminals	225	.44
Two-conductor; Black Handle. Solder Lug Terminals	227	.41
Two-conductor; Red Handle. Solder Lug Terminals	229	.41
Three-conductor; Black Handle. Screw Type Terminals	230	.65
Three-conductor; Red Handle. Screw Type Terminals	235	.65
Three-conductor; Black Handle. Solder Lug Terminals	237	.62
Three-conductor; Red Handle. Solder Lug Terminals	239	.62

SWITCHCRAFT
"TINI-JAX" & "TINI-PLUGS"

"TINI-PLUG"

A real sub-miniature 2-conductor Phone Plug, designed for use with the new "Tini-JAX".

Actually about 1/3 the size of Switchcraft's "Littel Plugs"

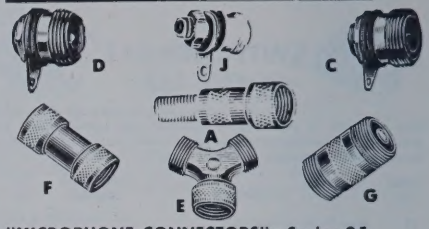
740	Black Tenite Handle	Screw Terminals	.44
745	Red Tenite Handle	Screw Terminals	.44
750	Black Tenite Handle	Clamp-lug	.41
755	Red Tenite Handle	Clamp-lug	.41
770	Shielded Handle	Screw Terminals	.62
780	Shielded Handle	Clamp-lug	.59

"TINI-JAX"

Actually a sub-miniature Phone Jack, with all the features of Switchcraft's "Littel Jax"

Only 1/3 the size of the miniature "Littel Jax", net weight less than 1/6 oz. Mounts in 1/4" dia. mounting hole in panels up to 1/8" thick. Mates with Switchcraft's sub-miniature "Tini-Plug."

PART NO.		DESCRIPTION	Net Ea.
41		2-conductor open circuit	$ .24
42A		2-conductor closed circuit	.27



"MICROPHONE CONNECTORS"—Series 25

Designed for use with single conductor microphone cable. Cable connector provided with flexible Cord Protector Spring assembled into body, cable braid and spring clamped by hollow point set screw. Unique design of cable connector; coupling ring removable, resulting in quick change of female connector to male type.

Panel receptacles mount in .385" hole for connection to chassis; for insulated mounting, use insulating washers —1/2" dia. mounting hole.

"Y"-CONNECTORS"

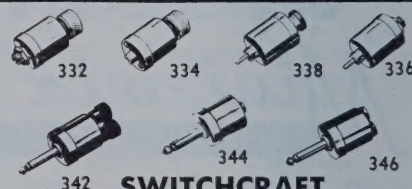
A unique die cast design, results in a light weight adapter that makes it possible to connect 2 cables (with standard microphone connectors) in parallel to a single connector. Casting pleasingly finished, harmonizes with the mating connectors, such as Switchcraft #2501F. New weight 1 ounce.

"MINI-CON" Connectors—Series 55

A Miniature Connector, designed for use with single conductor cable (single conductor and a shield). Approximately 1/4 the size of standard microphone connectors (Switchcraft Series 25). Average net weight 1/4 ounce.

Ideal for lapel microphones, musical instruments, etc., —wherever small cable is used; accepts cable up to 3/16" diameter.

DESCRIPTION	FIGURE	PART NO.	Net Ea.
Straight Connector, single contact, female type, coupling ring.	A	2501F	$ .35
Straight Connector, single contact, male type.		2501M	.26
Panel Connector, single contact, male type.	C	2501MP	.21
Panel Connector, closed circuit, male type.	D	2501MPC	.26
Two Male Connectors to One Female Connector.	E	25Y	.97
Double Female Connector, for connecting 2 cables with Male Connectors.	F	2501FT	.47
Double Male Connector, for connecting 2 cables with Female Connectors.	G	2501MT	.41
Straight Connector, single contact, female type, coupling ring.	H	5501F	.35
Straight Connector, single contact, male type.		5501M	.26
Panel Connector, single contact, male type.	J	5501MP	.21



SWITCHCRAFT
"ADAPTERS"

A complete line of adapters to provide convenient interchange of equipment between various wiring devices. A sturdy construction consisting of a brass nickel plated housing into which have been assembled various combinations of Phone Jacks, Phone Plugs, Microphone and Phono Connectors, Binding Posts and Pin Jacks. The red colored Binding Post or Tip Jacks are completely insulated and wired to the tip of the Phone Plug. The black post or Jack is common (grounded) to the plug sleeve. In the other adapters the common connection is obvious.

Phone Jack Input to Female Microphone Connector Output	332	1.03
Phono Jack Connector Input to Female Microphone Connector Output	334	.86
Phone Jack Input to Phono Plug Connector Output	336	.86
Male Microphone Connector Input to Phono Plug Connector Output	338	.86
Dual-Purpose Binding Post/Banana Jack Input to Phone Plug Output	342	1.53
Phono Jack Connector Input to Phone Plug Output	344	.86
Tip Jack Input to Phone Plug Output	346	1.27
Phono Jack Input to Phono Jack Output	348	.82

AMPHENOL AN CONNECTORS & FITTINGS

Sun Radio is an authorized stocking industrial distributor of Amphenol "An" Connectors manufactured to JAN MIL C-5015 Specifications. From stock delivery on all types.

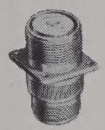
PRICES SHOWN ARE LIST SUBJECT TO THE FOLLOWING DISCOUNT

Quantity 1 to 24 Pieces 50/10% For larger quantities, please check with us for price.

AMPHENOL MINIATURE "AN" TYPE CONNECTORS

Small compact versions of standard AN connectors for similar applications. Connectors are pressure-proof and, mated or apart, completely waterproof. Weights average about one-third of standard sizes.

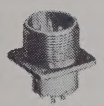
AN3101A

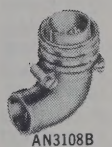

AN3100A

AN3101B

AN3100B

AN3106A

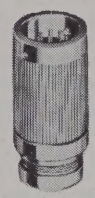

AN3102A


AN3108B

AN3106B

AN3108A

Receptacle


Plug

Miniature Part Number						Description	
Male		Female		Contacts		Current Rating	Volts*
Plug	Receptacle	Plug	Receptacle	#20	#16	Amperes	*RMS at sea level*
165-33	165-35	165-34	165-36	5	——	7.5	600
165-13	165-15	165-14	165-16	9	——	7.5	500
165-9	165-11	165-10	165-12	12	——	7.5	500
165-17	165-19	165-18	165-20	7	4	7.5 and 17	500
165-29	165-31	165-30	165-32	——	14	17	500
165-25	165-27	165-26	165-28	24	——	7.5	500

PART NUMBER	LIST PRICE EACH	PART NUMBER	LIST PRICE EACH	PART NUMBER	LIST PRICE EACH
165-9	$7.96	165-17	$10.00	165-29	$10.22
165-10	9.48	165-18	11.96	165-30	12.78
165-11	5.22	165-19	6.48	165-31	6.78
165-12	7.37	165-20	8.56	165-32	9.56
165-13	7.07	165-25	11.48	165-33	6.67
165-14	8.70	165-26	15.22	165-34	7.82
165-15	4.89	165-27	8.00	165-35	4.52
165-16	6.56	165-28	11.89	165-36	5.67

AMPHENOL "AN" CABLE CLAMPS AND DUST CAPS

AN3057

9760

CABLE CLAMP	LIST PRICE EACH	FITS CONNECTOR SIZE	DUST CAPS	LIST PRICE EACH
AN3057-3	$ .76	8S, 10S	9760-8	$0.93
AN3057-4	.81	12, 12S	9760-10	0.96
AN3057-6	.84	14, 14S	9760-12	1.04
AN3057-8	.91	16, 16S	9760-14	1.22
AN3057-10	.98	18	9760-16	1.48
AN3057-12	1.04	20, 22	9760-18	1.56
AN3057-16	1.16	24, 28	9760-20	1.63
AN3057-20	2.00	32	9760-22	1.70
AN3057-24	2.11	36	9760-24	1.78
AN3057-28	2.19	40	9760-28	1.89
AN3057-32	2.32	44	9760-32	2.22
AN3057-40	2.65	48	9760-36	2.44

AMPHENOL STANDARD "AN" TYPE CONNECTORS

N. A. DESIGNATES CONNECTOR NOT AVAILABLE IN THAT PARTICULAR SHELL TYPE

SHELL	AN3100		AN3101		AN3102	AN3106		AN3108	
INSERT	A	B	A	B	A	A	B	A	B
8S-1P	1.56	N.A.	1.48	N.A.	1.11	1.56	N.A.	2.37	N.A.
8S-1S	1.52	N.A.	1.44	N.A.	1.07	1.52	N.A.	2.33	N.A.
10S-2P	1.56	N.A.	1.30	N.A.	.93	1.33	N.A.	2.44	1.93
10S-2S	1.56	N.A.	1.30	N.A.	.93	1.33	N.A.	2.44	1.93
10S-656P	1.48	N.A.	1.22	N.A.	.85	1.26	N.A.	2.37	1.85
10S-656S	1.56	N.A.	1.30	N.A.	.93	1.33	N.A.	2.44	1.93
10SL-3P	1.78	N.A.	1.52	N.A.	1.15	N.A.	N.A.	N.A.	N.A.
10SL-3S	N.A.	N.A.	N.A.	N.A.	N.A.	1.67	N.A.	2.81	2.26
10SL-4P	1.63	N.A.	1.37	N.A.	1.00	N.A.	N.A.	N.A.	N.A.
10SL-4S	N.A.	N.A.	N.A.	N.A.	N.A.	1.56	N.A.	2.67	2.11
10S12-2P	1.48	N.A.	1.70	N.A.	.96	1.48	N.A.	2.74	N.A.
10S12-2S	1.44	N.A.	1.67	N.A.	.93	1.44	N.A.	2.70	N.A.
12-5P	1.56	N.A.	1.78	N.A.	1.04	1.56	N.A.	2.81	2.26
12-5S	1.85	N.A.	2.07	N.A.	1.33	1.85	N.A.	3.11	2.56
12S-1P	1.37	N.A.	1.41	N.A.	.93	1.56	N.A.	2.63	2.07
12S-1S	1.44	N.A.	1.48	N.A.	1.00	1.63	N.A.	2.70	2.15
12S-2P	1.37	N.A.	1.41	N.A.	.93	1.56	N.A.	2.63	2.07
12S-2S	1.44	N.A.	1.48	N.A.	1.00	1.63	N.A.	2.70	2.15
12S-3P	1.37	N.A.	1.41	N.A.	.93	1.56	N.A.	2.63	2.07
12S-3S	1.44	N.A.	1.48	N.A.	1.00	1.63	N.A.	2.70	2.15
12S-4P	1.41	N.A.	1.44	N.A.	.96	1.59	N.A.	2.67	2.11
12S-4S	1.44	N.A.	1.48	N.A.	1.00	1.63	N.A.	2.70	2.15
12S-6P	4.59	N.A.	4.63	N.A.	4.15	4.78	N.A.	5.85	5.30
12S-6S	1.59	N.A.	1.63	N.A.	1.15	1.78	N.A.	2.85	2.30

SHELL	AN3100		AN3101		AN3102	AN3106		AN3108	
INSERT	A	B	A	B	A	A	B	A	B
12SL-844P	N.A.	N.A.	N.A.	N.A.	2.07	N.A.	N.A.	N.A.	N.A.
12SL-844S	N.A.	N.A.	N.A.	N.A.	N.A.	2.70	N.A.	3.70	N.A.
14-3P	1.96	N.A.	2.04	N.A.	1.48	2.15	N.A.	3.37	2.67
14-3S	2.30	N.A.	2.37	N.A.	1.81	2.48	N.A.	3.70	3.00
14S-1P	1.74	N.A.	1.81	N.A.	1.26	1.93	2.59	3.07	1.85
14S-1S	1.81	N.A.	1.89	N.A.	1.33	2.00	2.67	3.15	1.93
14S-2P	1.74	N.A.	1.81	N.A.	1.26	1.93	2.59	3.07	1.85
14S-2S	1.93	N.A.	2.00	N.A.	1.44	2.11	2.78	3.26	2.04
14S-4P	1.56	N.A.	1.63	N.A.	1.07	1.74	2.41	2.89	1.67
14S-4S	1.59	N.A.	1.67	N.A.	1.11	1.78	2.44	2.93	1.70
14S-5P	1.96	N.A.	2.04	N.A.	1.48	2.15	2.81	3.30	2.07
14S-5S	2.04	N.A.	2.11	N.A.	1.56	2.22	2.89	3.37	2.15
14S-6P	2.19	N.A.	2.26	N.A.	1.70	2.37	3.04	3.52	2.30
14S-6S	2.19	N.A.	2.26	N.A.	1.70	2.37	3.04	3.52	2.30
14S-7P	1.74	N.A.	1.81	N.A.	1.26	1.93	2.59	3.07	1.85
14S-7S	1.81	N.A.	1.89	N.A.	1.33	2.00	2.67	3.15	1.93
14S-9P	1.63	N.A.	1.70	N.A.	1.15	1.81	2.48	2.96	1.74
14S-9S	1.70	N.A.	1.78	N.A.	1.22	1.89	2.56	3.04	1.81
14S-10P	1.74	N.A.	1.81	N.A.	1.26	1.93	2.59	3.07	1.85
14S-10S	1.93	N.A.	2.00	N.A.	1.44	2.11	2.78	3.26	2.04
14S-11P	1.93	N.A.	2.00	N.A.	1.44	2.11	2.78	3.26	2.04
14S-11S	1.93	N.A.	2.00	N.A.	1.44	2.11	2.78	3.26	2.04
14S-12P	1.74	N.A.	1.81	N.A.	1.26	1.93	2.59	3.07	1.85
14S-12S	1.81	N.A.	1.89	N.A.	1.33	2.00	2.67	3.15	1.93

We Supply Positioned Connectors At No Increase In Price.

AMPHENOL AN CONNECTORS (Continued)

SHELL	AN3100		AN3101		AN3102	AN3106		AN3108	
INSERT	A	B	A	B	A	A	B	A	B
14S-13P	1.74	N.A.	1.81	N.A.	1.26	1.93	2.59	3.07	1.85
14S-13S	1.81	N.A.	1.89	N.A.	1.33	2.00	2.67	3.15	1.93
14S-14P	1.74	N.A.	1.81	N.A.	1.26	1.93	2.59	3.07	1.85
14S-14S	1.93	N.A.	2.00	N.A.	1.44	2.11	2.78	3.26	2.04
16-2P	1.74	N.A.	2.07	N.A.	1.26	2.19	N.A.	3.89	2.70
16-2S	2.00	N.A.	2.33	N.A.	1.52	2.44	N.A.	4.15	2.96
16-7P	2.26	N.A.	2.59	N.A.	1.78	2.70	N.A.	4.41	3.22
16-7S	2.56	N.A.	2.89	N.A.	2.07	3.00	N.A.	4.70	3.52
16-9P	2.11	N.A.	2.44	N.A.	1.63	2.56	N.A.	4.26	3.07
16-9S	2.33	N.A.	2.67	N.A.	1.85	2.78	N.A.	4.48	3.30
16-10P	2.00	N.A.	2.33	N.A.	1.52	2.44	N.A.	4.15	2.96
16-10S	2.59	N.A.	2.93	N.A.	2.11	3.04	N.A.	4.74	3.56
16-11P	1.74	N.A.	2.07	N.A.	1.26	2.19	N.A.	3.89	2.70
16-11S	2.07	N.A.	2.41	N.A.	1.59	2.52	N.A.	4.22	3.04
16-12P	2.52	N.A.	2.85	N.A.	2.04	2.96	N.A.	4.67	3.48
16-12S	3.00	N.A.	3.33	N.A.	2.52	3.44	N.A.	5.15	3.96
16-13P	3.41	N.A.	3.74	N.A.	2.93	3.85	N.A.	5.56	4.37
16-13S	3.37	N.A.	3.70	N.A.	2.89	3.81	N.A.	5.52	4.33
16S-1P	2.11	N.A.	2.26	N.A.	1.59	2.33	3.15	4.15	3.00
16S-1S	2.07	N.A.	2.22	N.A.	1.56	2.30	3.11	4.11	2.96
16S-3P	1.56	N.A.	1.70	N.A.	1.04	1.78	2.59	3.59	2.44
16S-3S	1.67	N.A.	1.81	N.A.	1.15	1.89	2.70	3.70	2.56
16S-4P	1.70	N.A.	1.85	N.A.	1.19	1.93	2.74	3.74	2.59
16S-4S	1.78	N.A.	1.93	N.A.	1.26	2.00	2.81	3.81	2.67
16S-5P	1.70	N.A.	1.85	N.A.	1.19	1.93	2.74	3.74	2.59
16S-5S	1.93	N.A.	2.07	N.A.	1.41	2.15	2.96	3.96	2.81
16S-6P	1.85	N.A.	2.00	N.A.	1.33	2.07	2.89	3.89	2.74
16S-6S	1,93	N.A.	2.07	N.A.	1.41	2.15	2.96	3.96	2.81
16S-8P	1.96	N.A.	2.11	N.A.	1.44	2.19	3.00	4.00	2.85
16S-8S	2.04	N.A.	2.19	N.A.	1.52	2.26	3.07	4.07	2.93
16S-14P	1.70	N.A.	1.85	N.A.	1.19	1.93	2.74	3.74	2.59
16S-14S	1.93	N.A.	2.07	N.A.	1.41	2.15	2.96	3.96	2.81
16S-15P	1.70	N.A.	1.85	N.A.	1.19	1.93	2.74	3.74	2.59
16S-15S	1.78	N.A.	1.93	N.A.	1.26	2.00	2.81	3.81	2.67
16S-16P	1.70	N.A.	1.85	N.A.	1.19	1.93	2.74	3.74	2.59
16S-16S	1.78	N.A.	1.93	N.A.	1.26	2.00	2.81	3.81	2.67
16S-17P	1.70	N.A.	1.85	N.A.	1.19	1.93	2.74	3.74	2.59
16S-17S	1.93	N.A.	2.07	N.A.	1.41	2.15	2.96	3.96	2.81
18-1P	2.74	3.37	3.04	3.56	2.26	3.19	4.26	5.22	4.04
18-1S	2.89	3.52	3.19	3.70	2.41	3.33	4.41	5.37	4.19
18-3P	2.00	2.63	2.30	2.81	1.52	2.44	3.52	4.48	3.30
18-3S	2.37	3.00	2.67	3.19	1.89	2.81	3.89	4.85	3.67
18-4P	2.07	2.70	2.37	2.89	1.59	2.52	3.59	4.56	3.37
18-4S	2.30	2.93	2.59	3.11	1.81	2.74	3.81	4.78	3.59
18-5P	2.93	3.56	3.22	3.74	2.44	3.37	4.44	5.41	4.22
18-5S	2.26	2.89	2.56	3.07	1.78	2.70	3.78	4.74	3.56
18-6P	2.33	2.96	2.63	3.15	1.85	2.78	3.85	4.81	3.63
18-6S	2.81	3.44	3.11	3.63	2.33	3.26	4.33	5.30	4.11
18-7P	1.96	2.59	2.26	2.78	1.48	2.41	3.48	4.44	3.26
18-7S	2.44	3.07	2.74	3.26	1.96	2.89	3.96	4.93	3.74
18-8P	2.59	3.22	2.89	3.41	2.11	3.04	4.11	5.07	3.89
18-8S	2.93	3.56	3.22	3.74	2.44	3.37	4.44	5.41	4.22
18-9P	2.52	3.15	2.81	3.33	2.04	2.96	4.04	5.00	3.81
18-9S	2.81	3.44	3.11	3.63	2.33	3.26	4.33	5.30	4.11
18-10P	2.37	3.00	2.67	3.19	1.89	2.81	3.89	4.85	3.67
18-10S	3.15	3.78	3.44	3.96	2.67	3.59	4.67	5.63	4.44
18-11P	2.59	3.22	2.89	3.41	2.11	3.04	4.11	5.07	3.89
18-11S	2.85	3.48	3.15	3.67	2.37	3.30	4.37	5.33	4.15
18-12P	2.33	2.96	2.63	3.15	1.85	2.78	3.85	4.81	3.63
18-12S	2.59	3.22	2.89	3.41	2.11	3.04	4.11	5.07	3.89
18-13P	2.59	3.22	2.89	3.41	2.11	3.04	4.11	5.07	3.89
18-13S	3.19	3.81	3.48	4.00	2.70	3.63	4.70	5.67	4.48
18-14P	2.37	3.00	2.67	3.19	1.89	2.81	3.89	4.85	3.67
18-14S	3.07	3.70	3.37	3.89	2.59	3.52	4.59	5.56	4.37
18-15P	5.63	6.26	5.93	6.44	5.15	6.07	7.15	8.11	6.93
18-15S	6.00	6.63	6.30	6.81	5.52	6.44	7.52	8.48	7.30
18-16P	2.26	2.89	2.56	3.07	1.78	2.70	3.78	4.74	3.56
18-16S	2.74	3.37	3.04	3.56	2.26	3.19	4.26	5.22	4.04
18-17P	2.52	3.15	2.81	3.33	2.04	2.96	4.04	5.00	3.81
18-17S	2.81	3.44	3.11	3.63	2.33	3.26	4.33	5.30	4.11
18-18P	2.52	3.15	2.81	3.33	2.04	2.96	4.04	5.00	3.81
18-18S	2.81	3.44	3.11	3.63	2.33	3.26	4.33	5.30	4.11
18-19P	3.78	4.41	4.07	4.59	3.30	4.22	5.30	6.26	5.07
18-19S	3.19	3.81	3.48	4.00	2.70	3.63	4.70	5.67	4.48
18-20P	2.11	2.74	2.41	2.93	1.63	2.56	3.63	4.59	3.41
18-20S	2.44	3.07	2.74	3.26	1.96	2.89	3.96	4.93	3.74
18-21P	2.30	2.93	2.59	3.11	1.81	2.74	3.81	4.78	3.59
18-21S	2.63	3.26	2.93	3.44	2.15	3.07	4.15	5.11	3.93

SHELL	AN3100		AN3101		AN3102	AN3106		AN3108	
INSERT	A	B	A	B	A	A	B	A	B
18-22P	2.22	2.85	2.52	3.04	1.74	2.67	3.74	4.70	3.52
18-22S	2.41	3.04	2.70	3.22	1.93	2.85	3.93	4.89	3.70
18-23P	2.74	3.37	3.04	3.56	2.26	3.19	4.26	5.22	4.04
18-23S	2.89	3.52	3.19	3.70	2.41	3.33	4.41	5.37	4.19
18-24P	2.74	3.37	3.04	3.56	2.26	3.19	4.26	5.22	4.04
18-24S	2.89	3.52	3.19	3.70	2.41	3.33	4.41	5.37	4.19
18-25P	2.00	2.63	2.30	2.81	1.52	2.44	3.52	4.48	3.30
18-25S	2.37	3.00	2.67	3.19	1.89	2.81	3.89	4.85	3.67
18-26P	2.00	2.63	2.30	2.81	1.52	2.44	3.52	4.48	3.30
18-26S	2.37	3.00	2.67	3.19	1.89	2.81	3.89	4.85	3.67
18-27P	2.93	3.56	3.22	3.74	2.44	3.37	4.44	5.41	4.22
18-27S	2.26	2.89	2.56	3.07	1.78	2.70	3.78	4.74	3.56
18-28P	2.93	3.56	3.22	3.74	2.44	3.37	4.44	5.41	4.22
18-28S	2.26	2.89	2.56	3.07	1.78	2.70	3.78	4.74	3.56
18-29P	2.26	2.89	2.56	3.07	1.78	2.70	3.78	4.74	3.56
18-29S	2.59	3.22	2.89	3.41	2.11	3.04	4.11	5.07	3.89
18-30P	2.11	2.74	2.41	2.93	1.63	2.56	3.63	4.59	3.41
18-30S	2.44	3.07	2.74	3.26	1.96	2.89	3.96	4.93	3.74
18-31P	2.11	2.74	2.41	2.93	1.63	2.56	3.63	4.59	3.41
18-31S	2.44	3.07	2.74	3.26	1.96	2.89	3.96	4.93	3.74
18-404P	3.59	4.22	3.89	4.41	3.11	4.04	5.11	6.07	4.89
18-404S	3.15	3.78	3.44	3.96	2.67	3.59	4.67	5.63	4.44
20-1P	3.41	4.04	3.74	4.22	2.89	3.89	4.81	6.44	4.96
20-1S	3.52	4.15	3.85	4.33	3.00	4.00	4.93	6.56	5.07
20-2P	3.04	3.67	3.37	3.85	2.52	3.52	4.44	6.07	4.59
20-2S	3.44	4.07	3.78	4.26	2.93	3.93	4.85	6.48	5.00
20-3P	2.37	3.00	2.70	3.19	1.85	2.85	3.78	5.41	3.93
20-3S	3.15	3.78	3.48	3.96	2.63	3.63	4.56	6.19	4.70
20-4P	2.52	3.15	2.85	3.33	2.00	3.00	3.93	5.56	4.07
20-4S	3.04	3.67	3.37	3.85	2.52	3.52	4.44	6.07	4.59
20-5P	2.26	2.89	2.59	3.07	1.74	2.74	3.67	5.30	3.81
20-5S	2.48	3.11	2.81	3.30	1.96	2.96	3.89	5.52	4.04
20-6P	2.19	2.81	2.52	3.00	1.67	2.67	3.59	5.22	3.74
20-6S	2.48	3.11	2.81	3.30	1.96	2.96	3.89	5.52	4.04
20-7P	2.74	3.37	3.07	3.56	2.22	3.22	4.15	5.78	4.30
20-7S	2.96	3.59	3.30	3.78	2.44	3.44	4.37	6.00	4.52
20-8P	3.15	3.78	3.48	3.96	2.63	3.63	4.56	6.19	4.70
20-8S	3.56	4.19	3.89	4.37	3.04	4.04	4.96	6.59	5.11
20-9P	2.93	3.56	3.26	3.74	2.41	3.41	4.33	5.96	4.48
20-9S	3.37	4.00	3.70	4.19	2.85	3.85	4.78	6.41	4.93
20-11P	3.22	3.85	3.56	4.04	2.70	3.70	4.63	6.26	4.78
20-11S	5.33	5.96	5.67	6.15	4.81	5.81	6.74	8.37	6.89
20-12P	2.85	3.48	3.19	3.67	2.33	3.33	4.26	5.89	4.41
20-12S	3.26	3.89	3.59	4.07	2.74	3.74	4.67	6.30	4.81
20-13P	2.15	2.78	2.48	2.96	1.63	2.63	3.56	5.19	3.70
20-13S	3.41	4.04	3.74	4.22	2.89	3.89	4.81	6.44	4.96
20-14P	3.11	3.74	3.44	3.93	2.59	3.59	4.52	6.15	4.67
20-14S	4.11	4.74	4.44	4.93	3.59	4.5°	5.52	7.15	5.67
20-15P	3.04	3.67	3.37	3.85	2.52	3.52	4.44	6.07	4.59
20-15S	4.19	4.81	4.52	5.00	3.67	4.67	5.59	7.22	5.74
20-16P	2.70	3.33	3.04	3.52	2.19	3.19	4.11	5.74	4.26
20-16S	3.33	3.96	3.67	4.15	2.81	3.81	4.74	6.37	4.89
20-17P	2.93	3.56	3.26	3.74	2.41	3.41	4.33	5.96	4.48
20-17S	3.44	4.07	3.78	4.26	2.93	3.93	4.85	6.48	5.00
20-18P	3.00	3.63	3.33	3.81	2.48	3.48	4.41	6.04	4.56
20-18S	3.41	4.04	3.74	4.22	2.89	3.89	4.81	6.44	4.96
20-19P	3.07	3.70	3.41	3.89	2.56	3.56	4.48	6.11	4.63
20-19S	3.93	4.56	4.26	4.74	3.41	4.41	5.33	6.96	5.48
20-20P	3.19	3.81	3.52	4.00	2.67	3.67	4.59	6.22	4.74
20-20S	3.93	4.56	4.26	4.74	3.41	4.41	5.33	6.96	5.48
20-21P	2.70	3.33	3.04	3.52	2.19	3.19	4.11	5.74	4.26
20-21S	3.07	3.70	3.41	3.89	2.56	3.56	4.48	6.11	4.63
20-22P	3.52	4.15	3.85	4.33	3.00	4.00	4.93	6.56	5.07
20-22S	4.19	4.81	4.52	5.00	3.67	4.67	5.59	7.22	5.74
20-23P	2.74	3.37	3.07	3.56	2.22	3.22	4.15	5.78	4.30
20-23S	3.33	3.96	3.67	4.15	2.81	3.81	4.74	6.37	4.89
20-24P	2.93	3.56	3.26	3.74	2.41	3.41	4.33	5.96	4.48
20-24S	3.59	4.22	3.93	4.41	3.07	4.07	5.00	6.63	5.15
20-25P	3.22	3.85	3.56	4.04	2.70	3.70	4.63	6.26	4.78
20-25S	5.33	5.96	5.67	6.15	4.81	5.81	6.74	8.37	6.89
20-27P	3.41	4.04	3.74	4.22	2.89	3.89	4.81	6.44	4.96
20-27S	3 52	4.15	3.85	4.33	3.00	4.00	4.93	6.56	5.07
20-28P	3.41	4.04	3.74	4.22	2.89	3.89	4.81	6.44	4.96
20-28S	3.52	4.15	3.85	4.33	3.00	4.00	4.93	6.56	5.07
20-29P	3.78	4.41	4.11	4.59	3.26	4.26	5.19	6.81	5.33
20-29S	3.81	4.44	4.15	4.63	3.30	4.30	5.22	6.85	5.37
20-30P	3.22	3.85	3.56	4.04	2.70	3.70	4.63	6.26	4.78
20-30S	5.33	5.96	5.67	6.15	4.81	5.81	6.74	8.37	6.89

AMPHENOL AN CONNECTORS (Continued)

SHELL	AN3100		AN3101		AN3102	AN3106		AN3108	
INSERT	A	B	A	B	A	A	B	A	B
20-32P	2.74	3.37	3.07	3.56	2.22	3.22	4.15	5.78	4.30
20-32S	2.96	3.59	3.30	3.78	2.44	3.44	4.37	6.00	4.52
20-33P	3.07	3.70	3.41	3.89	2.56	3.56	4.48	6.11	4.63
20-33S	3.48	4.11	3.81	4.30	2.96	3.96	4.89	6.52	5.04
20-854P	2.59	3.22	2.93	3.41	2.07	3.07	4.00	5.63	4.15
20-854S	3.00	3.63	3.33	3.81	2.48	3.48	4.41	6.04	4.56
22-1P	2.93	3.56	3.19	3.63	2.26	3.41	4.67	6.07	4.48
22-1S	3.63	4.26	3.89	4.33	2.96	4.11	5.37	6.78	5.19
22-2P	3.30	3.93	3.56	4.00	2.63	3.78	5.04	6.44	4.85
22-2S	3.96	4.59	4.22	4.67	3.30	4.44	5.70	7.11	5.52
22-3P	3.48	4.11	3.74	4.19	2.81	3.96	5.22	6.63	5.04
22-3S	3.67	4.30	3.93	4.37	3.00	4.15	5.41	6.81	5.22
22-4P	3.04	3.67	3.30	3.74	2.37	3.52	4.78	6.19	4.59
22-4S	4.37	5.00	4.63	5.07	3.70	4.85	6.11	7.52	5.93
22-5P	2.89	3.52	3.15	3.59	2.22	3.37	4.63	6.04	4.44
22-5S	3.85	4.48	4.11	4.56	3.19	4.33	5.59	7.00	5.41
22-6P	3.00	3.63	3.26	3.70	2.33	3.48	4.74	6.15	4.56
22-6S	3.59	4.22	3.85	4.30	2.93	4.07	5.33	6.74	5.15
22-7P	3.15	3.78	3.41	3.85	2.48	3.63	4.89	6.30	4.70
22-7S	3.89	4.52	4.15	4.59	3.22	4.37	5.63	7.04	5.44
22-8P	2.44	3.07	2.70	3.15	1.78	2.93	4.19	5.59	4.00
22-8S	3.22	3.85	3.48	3.93	2.56	3.70	4.96	6.37	4.78
22-9P	2.59	3.22	2.85	3.30	1.93	3.07	4.33	5.74	4.15
22-9S	3.22	3.85	3.48	3.93	2.56	3.70	4.96	6.37	4.78
22-10P	2.63	3.26	2.89	3.33	1.96	3.11	4.37	5.78	4.19
22-10S	2.74	3.37	3.00	3.44	2.07	3.22	4.48	5.89	4.30
22-11P	2.26	2.89	2.52	2.96	1.59	2.74	4.00	5.41	3.81
22-11S	2.70	3.33	2.96	3.41	2.04	3.19	4.44	5.85	4.26
22-12P	3.11	3.74	3.37	3.81	2.44	3.59	4.85	6.26	4.67
22-12S	3.74	4.37	4.00	4.44	3.07	4.22	5.48	6.89	5.30
22-13P	3.00	3.63	3.26	3.70	2.33	3.48	4.74	6.15	4.56
22-13S	3.26	3.89	3.52	3.96	2.59	3.74	5.00	6.41	4.81
22-14P	4.15	4.78	4.41	4.85	3.48	4.63	5.89	7.30	5.70
22-14S	4.56	5.19	4.81	5.26	3.89	5.04	6.30	7.70	6.11
22-15P	3.26	3.89	3.52	3.96	2.59	3.74	5.00	6.41	4.81
22-15S	3.96	4.59	4.22	4.67	3.30	4.44	5.70	7.11	5.52
22-16P	3.15	3.78	3.41	3.85	2.48	3.63	4.89	6.30	4.70
22-16S	3.63	4.26	3.89	4.33	2.96	4.11	5.37	6.78	5.19
22-17P	3.00	3.63	3.26	3.70	2.33	3.48	4.74	6.15	4.56
22-17S	3.67	4.30	3.93	4.37	3.00	4.15	5.41	6.81	5.22
22-18P	3.30	3.93	3.56	4.00	2.63	3.78	5.04	6.44	4.85
22-18S	3.37	4.00	3.63	4.07	2.70	3.85	5.11	6.52	4.93
22-19P	3.78	4.41	4.04	4.48	3.11	4.26	5.52	6.93	5.33
22-19S	3.89	4.52	4.15	4.59	3.22	4.37	5.63	7.04	5.44
22-20P	2.85	3.48	3.11	3.56	2.19	3.33	4.59	6.00	4.41
22-20S	3.44	4.07	3.70	4.15	2.78	3.93	5.19	6.59	5.00
22-21P	3.48	4.11	3.74	4.19	2.81	3.96	5.22	6.63	5.04
22-21S	4.04	4.67	4.30	4.74	3.37	4.52	5.78	7.19	5.59
22-22P	3.78	4.41	4.04	4.48	3.11	4.26	5.52	6.93	5.33
22-22S	6.48	7.11	6.74	7.19	5.81	6.96	8.22	9.63	8.04
22-23P	5.30	5.93	5.56	6.00	4.63	5.78	7.04	8.44	6.85
22-23S	4.81	5.44	5.07	5.52	4.15	5.30	6.56	7.96	6.37
22-24P	2.70	3.33	2.96	3.41	2.04	3.19	4.44	5.85	4.26
22-24S	3.15	3.78	3.41	3.85	2.48	3.63	4.89	6.30	4.70
22-25P	3.33	3.96	3.59	4.04	2.67	3.81	5.07	6.48	4.89
22-25S	3.78	4.41	4.04	4.48	3.11	4.26	5.52	6.93	5.33
22-26P	3.04	3.67	3.30	3.74	2.37	3.52	4.78	6.19	4.59
22-26S	3.48	4.11	3.74	4.19	2.81	3.96	5.22	6.63	5.04
22-27P	3.19	3.81	3.44	3.89	2.52	3.67	4.93	6.33	4.74
22-27S	3.89	4.52	4.15	4.59	3.22	4.37	5.63	7.04	5.44
22-28P	3.37	4.00	3.63	4.07	2.70	3.85	5.11	6.52	4.93
22-28S	4.59	5.22	4.85	5.30	3.93	5.07	6.33	7.74	6.15
22-29P	3.37	4.00	3.63	4.07	2.70	3.85	5.11	6.52	4.93
22-29S	3.85	4.48	4.11	4.56	3.19	4.33	5.59	7.00	5.41
22-30P	4.15	4.78	4.41	4.85	3.48	4.63	5.89	7.30	5.70
22-30S	4.56	5.19	4.81	5.26	3.89	5.04	6.30	7.70	6.11
22-32P	2.89	3.52	3.15	3.59	2.22	3.37	4.63	6.04	4.44
22-32S	3.85	4.48	4.11	4.56	3.19	4.33	5.59	7.00	5.41
22-33P	3.00	3.63	3.26	3.70	2.33	3.48	4.74	6.15	4.56
22-33S	3.19	3.81	3.44	3.89	2.52	3.67	4.93	6.33	4.74
22-34P	2.70	3.33	2.96	3.41	2.04	3.19	4.44	5.85	4.26
22-34S	3.44	4.07	3.70	4.15	2.78	3.93	5.19	6.59	5.00
22-35P	3.30	3.93	3.56	4.00	2.63	3.78	5.04	6.44	4.85
22-35S	3.96	4.59	4.22	4.67	3.30	4.44	5.70	7.11	5.52
22-36P	10.04	10.67	10.30	10.74	9.37	10.52	11.78	13.19	11.59
22-36S	7.81	8.44	8.07	8.52	7.15	8.30	9.56	10.96	9.37
22-37P	3.30	3.93	3.56	4.00	2.63	3.78	5.04	6.44	4.85
22-37S	3.96	4.59	4.22	4.67	3.30	4.44	5.70	7.11	5.52

SHELL	AN3100		AN3101		AN3102	AN3106		AN3108	
INSERT	A	B	A	B	A	A	B	A	B
22-404P	10.59	11.22	10.85	11.30	9.93	11.07	12.33	13.74	12.15
22-404S	11.44	12.07	11.70	12.15	10.78	11.93	13.19	14.59	13.00
24-1P	3.33	4.11	3.78	4.19	2.78	4.30	5.00	7.22	5.04
24-1S	4.11	4.89	4.56	4.96	3.56	5.07	5.78	8.00	5.81
24-2P	3.41	4.19	3.85	4.26	2.85	4.37	5.07	7.30	5.11
24-2S	4.22	5.00	4.67	5.07	3.67	5.19	5.89	8.11	5.93
24-3P	2.93	3.70	3.37	3.78	2.37	3.89	4.59	6.81	4.63
24-3S	3.48	4.26	3.93	4.33	2.93	4.44	5.15	7.37	5.19
24-4P	3.52	4.30	3.96	4.37	2.96	4.48	5.19	7.41	5.22
24-4S	4.19	4.96	4.63	5.04	3.63	5.15	5.85	8.07	5.89
24-5P	3.81	4.59	4.26	4.67	3.26	4.78	5.48	7.70	5.52
24-5S	4.44	5.22	4.89	5.30	3.89	5.41	6.11	8.33	6.15
24-6P	3.56	4.33	4.00	4.41	3.00	4.52	5.22	7.44	5.26
24-6S	4.85	5.63	5.30	5.70	4.30	5.81	6.52	8.74	6.56
24-7P	3.81	4.59	4.26	4.67	3.26	4.78	5.48	7.70	5.52
24-7S	4.37	5.15	4.81	5.22	3.81	5.33	6.04	8.26	6.07
24-9P	4.04	4.81	4.48	4.89	3.48	5.00	5.70	7.93	5.74
24-9S	4.41	5.19	4.85	5.26	3.85	5.37	6.07	8.30	6.11
24-10P	5.11	5.89	5.56	5.96	4.56	6.07	6.78	9.00	6.81
24-10S	7.00	7.78	7.44	7.85	6.44	7.96	8.67	10.89	8.70
24-11P	4.37	5.15	4.81	5.22	3.81	5.33	6.04	8.26	6.07
24-11S	5.63	6.41	6.07	6.48	5.07	6.59	7.30	9.52	7.33
24-12P	4.30	5.07	4.74	5.15	3.74	5.26	5.96	8.19	6.00
24-12S	5.37	6.15	5.81	6.22	4.81	6.33	7.04	9.26	7.07
24-14P	4.00	4.78	4.44	4.85	3.44	4.96	5.67	7.89	5.70
24-14S	5.33	6.11	5.78	6.19	4.78	6.30	7.00	9.22	7.04
24-15P	3.81	4.59	4.26	4.67	3.26	4.78	5.48	7.70	5.52
24-15S	4.44	5.22	4.89	5.30	3.89	5.41	6.11	8.33	6.15
24-16P	3.59	4.37	4.04	4.44	3.04	4.56	5.26	7.48	5.30
24-16S	4.37	5.15	4.81	5.22	3.81	5.33	6.04	8.26	6.07
24-17P	2.89	3.67	3.33	3.74	2.33	3.85	4.56	6.78	4.59
24-17S	3.22	4.00	3.67	4.07	2.67	4.19	4.89	7.11	4.93
24-18P	2.70	3.48	3.15	3.56	2.15	3.67	4.37	6.59	4.41
24-18S	4.74	5.52	5.19	5.59	4.19	5.70	6.41	8.63	6.44
24-19P	3.56	4.33	4.00	4.41	3.00	4.52	5.22	7.44	5.26
24-19S	3.78	4.56	4.22	4.63	3.22	4.74	5.44	7.67	5.48
24-20P	3.37	4.15	3.81	4.22	2.81	4.33	5.04	7.26	5.07
24-20S	3.63	4.41	4.07	4.48	3.07	4.59	5.30	7.52	5.33
24-21P	3.37	4.15	3.81	4.22	2.81	4.33	5.04	7.26	5.07
24-21S	3.89	4.67	4.33	4.74	3.33	4.85	5.56	7.78	5.59
24-22P	4.04	4.81	4.48	4.89	3.48	5.00	5.70	7.93	5.74
24-22S	5.19	5.96	5.63	6.04	4.63	6.15	6.85	9.07	6.89
24-23P	3.93	4.70	4.37	4.78	3.37	4.89	5.59	7.81	5.63
24-23S	4.89	5.67	5.33	5.74	4.33	5.85	6.56	8.78	6.59
24-24P	3.81	4.59	4.26	4.67	3.26	4.78	5.48	7.70	5.52
24-24S	4.44	5.22	4.89	5.30	3.89	5.41	6.11	8.33	6.15
24-25P	3.56	4.33	4.00	4.41	3.00	4.52	5.22	7.44	5.26
24-25S	4.85	5.63	5.30	5.70	4.30	5.81	6.52	8.74	6.56
24-26P	3.56	4.33	4.00	4.41	3.00	4.52	5.22	7.44	5.26
24-26S	4.85	5.63	5.30	5.70	4.30	5.81	6.52	8.74	6.56
24-27P	3.07	3.85	3.52	3.93	2.52	4.04	4.74	6.96	4.78
24-27S	3.26	4.04	3.70	4.11	2.70	4.22	4.93	7.15	4.96
24-28P	4.07	4.85	4.52	4.93	3.52	5.04	5.74	7.96	5.78
24-28S	5.15	5.93	5.59	6.00	4.59	6.11	6.81	9.04	6.85
24-76SP	4.19	4.96	4.63	5.04	3.63	5.15	5.85	8.07	5.89
24-76SS	5.63	6.41	6.07	6.48	5.07	6.59	7.30	9.52	7.33
24-83SP	3.11	3.89	3.56	3.96	2.56	4.07	4.78	7.00	4.81
24-83SS	3.11	3.89	3.56	3.96	2.56	4.07	4.78	7.00	4.81
24-86SP	3.15	3.93	3.59	4.00	2.59	4.11	4.81	7.04	4.85
24-86SS	4.67	5.44	5.11	5.52	4.11	5.63	6.33	8.56	6.37
28-1P	4.93	5.26	5.37	5.48	3.93	5.67	6.33	8.56	6.37
28-1S	6.37	6.70	6.81	6.93	5.37	7.11	7.78	10.00	7.81
28-2P	4.30	4.63	4.74	4.85	3.30	5.04	5.70	7.93	5.74
28-2S	4.93	5.26	5.37	5.48	3.93	5.67	6.33	8.56	6.37
28-3P	4.11	4.44	4.56	4.67	3.11	4.85	5.52	7.74	5.56
28-3S	4.96	5.30	5.41	5.52	3.96	5.70	6.37	8.59	6.41
28-4P	4.00	4.33	4.44	4.56	3.00	4.74	5.41	7.63	5.44
28-4S	4.33	4.67	4.78	4.89	3.33	5.07	5.74	7.96	5.78
28-5P	4.93	5.26	5.37	5.48	3.93	5.67	6.33	8.56	6.37
28-5S	6.30	6.63	6.74	6.85	5.30	7.04	7.70	9.93	7.74
28-6P	5.56	5.89	6.00	6.11	4.56	6.30	6.96	9.19	7.00
28-6S	7.07	7.41	7.52	7.63	6.07	7.81	8.48	10.70	8.52
28-7P	4.41	4.74	4.85	4.96	3.41	5.15	5.81	8.04	5.85
28-7S	5.30	5.63	5.74	5.85	4.30	6.04	6.70	8.93	6.74
28-8P	4.22	4.56	4.67	4.78	3.22	4.96	5.63	7.85	5.67
28-8S	4.78	5.11	5.22	5.33	3.78	5.52	6.19	8.41	6.22
28-9P	4.70	5.04	5.15	5.26	3.70	5.44	6.11	8.33	6.15
28-9S	5.15	5.48	5.59	5.70	4.15	5.89	6.56	8.78	6.59

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

AMPHENOL AN CONNECTORS (Continued)

SHELL	AN3100		AN3101		AN3102	AN3106		AN3108	
INSERT	A	B	A	B	A	A	B	A	B
28-10P	5.81	6.15	6.26	6.37	4.81	6.56	7.22	9.44	7.26
28-10S	7.48	7.81	7.93	8.04	6.48	8.22	8.89	11.11	8.93
28-11P	5.56	5.89	6.00	6.11	4.56	6.30	6.96	9.19	7.00
28-11S	6.15	6.48	6.59	6.70	5.15	6.89	7.56	9.78	7.59
28-12P	5.19	5.52	5.63	5.74	4.19	5.93	6.59	8.81	6.63
28-12S	6.30	6.63	6.74	6.85	5.30	7.04	7.70	9.93	7.74
28-13P	5.19	5.52	5.63	5.74	4.19	5.93	6.59	8.81	6.63
28-13S	6.30	6.63	6.74	6.85	5.30	7.04	7.70	9.93	7.74
28-14P	4.30	4.63	4.74	4.85	3.30	5.04	5.70	7.93	5.74
28-14S	4.78	5.11	5.22	5.33	3.78	5.52	6.19	8.41	6.22
28-15P	6.85	7.19	7.30	7.41	5.85	7.59	8.26	10.48	8.30
28-15S	7.22	7.56	7.67	7.78	6.22	7.96	8.63	10.85	8.67
28-16P	4.93	5.26	5.37	5.48	3.93	5.67	6.33	8.56	6.37
28-16S	5.44	5.78	5.89	6.00	4.44	6.19	6.85	9.07	6.89
28-17P	4.41	4.74	4.85	4.96	3.41	5.15	5.81	8.04	5.85
28-17S	4.89	5.22	5.33	5.44	3.89	5.63	6.30	8.52	6.33
28-18P	4.37	4.70	4.81	4.93	3.37	5.11	5.78	8.00	5.81
28-18S	4.81	5.15	5.26	5.37	3.81	5.56	6.22	8.44	6.26
28-19P	4.11	4.44	4.56	4.67	3.11	4.85	5.52	7.74	5.56
28-19S	5.00	5.33	5.44	5.56	4.00	5.74	6.41	8.63	6.44
28-20P	4.89	5.22	5.33	5.44	3.89	5.63	6.30	8.52	6.33
28-20S	5.81	6.15	6.26	6.37	4.81	6.56	7.22	9.44	7.26
28-21P	7.04	7.37	7.48	7.59	6.04	7.78	8.44	10.67	8.48
28-21S	7.41	7.74	7.85	7.96	6.41	8.15	8.81	11.04	8.85
28-22P	5.59	5.93	6.04	6.15	4.59	6.33	7.00	9.22	7.04
28-22S	6.81	7.15	7.26	7.37	5.81	7.56	8.22	10.44	8.26
28-410P	5.15	5.48	5.59	5.70	4.15	5.89	6.56	8.78	6.59
28-410S	5.78	6.11	6.22	6.33	4.78	6.52	7.19	9.41	7.22
28-766P	5.63	5.96	6.07	6.19	4.63	6.37	7.04	9.26	7.07
28-766S	7.52	7.85	7.96	8.07	6.52	8.26	8.93	11.15	8.96
28-833P	5.07	5.41	5.52	5.63	4.07	5.81	6.48	8.70	6.52
28-833S	6.19	6.52	6.63	6.74	5.19	6.93	7.59	9.81	7.63
28-840P	5.48	5.81	5.93	6.04	4.48	6.22	6.89	9.11	6.93
28-840S	6.78	7.11	7.22	7.33	5.78	7.52	8.19	10.41	8.22
28-880P	12.67	13.00	13.11	13.22	11.67	13.41	14.07	16.30	14.11
28-880S	12.00	12.33	12.44	12.56	11.00	12.74	13.41	15.63	13.44
32-1P	6.63	6.33	6.56	6.56	4.89	7.52	7.33	11.19	8.19
32-1S	8.37	8.07	8.30	8.30	6.63	9.26	9.07	12.93	9.93
32-2P	7.07	6.78	7.00	7.00	5.33	7.96	7.78	11.63	8.63
32-2S	8.22	7.93	8.15	8.15	6.48	9.11	8.93	12.78	9.78
32-3P	7.52	7.22	7.44	7.44	5.78	8.41	8.22	12.07	9.07
32-3S	9.48	9.19	9.41	9.41	7.74	10.37	10.19	14.04	11.04
32-4P	5.48	5.19	5.41	5.41	3.74	6.37	6.19	10.04	7.04
32-4S	6.37	6.07	6.30	6.30	4.63	7.26	7.07	10.93	7.93
32-5P	6.48	6.19	6.41	6.41	4.74	7.37	7.19	11.04	8.04
32-5S	7.41	7.11	7.33	7.33	5.67	8.30	8.11	11.96	8.96
32-6P	8.67	8.37	8.59	8.59	6.93	9.56	9.37	13.22	10.22
32-6S	10.81	10.52	10.74	10.74	9.07	11.70	11.52	15.37	12.37
32-7P	8.04	7.74	7.96	7.96	6.30	8.93	8.74	12.59	9.59
32-7S	9.30	9.00	9.22	9.22	7.56	10.19	10.00	13.85	10.85
32-8P	7.30	7.00	7.22	7.22	5.56	8.19	8.00	11.85	8.85
32-8S	8.63	8.33	8.56	8.56	6.89	9.52	9.33	13.19	10.19
32-9P	6.89	6.59	6.81	6.81	5.15	7.78	7.59	11.44	8.44
32-9S	7.93	7.63	7.85	7.85	6.19	8.81	8.63	12.48	9.48
32-10P	6.56	6.26	6.48	6.48	4.81	7.44	7.26	11.11	8.11
32-10S	8.00	7.70	7.93	7.93	6.26	8.89	8.70	12.56	9.56
32-101P	13.85	13.56	13.78	13.78	12.11	14.74	14.56	18.41	15.41
32-101S	12.93	12.63	12.85	12.85	11.19	13.81	13.63	17.48	14.48
32-102P	9.89	9.59	9.81	9.81	8.15	10.78	10.59	14.44	11.44
32-102S	13.74	13.44	13.67	13.67	12.00	14.63	14.44	18.30	15.30
32-12P	7.19	6.89	7.11	7.11	5.44	8.07	7.89	11.74	8.74
32-12S	9.22	8.93	9.15	9.15	7.48	10.11	9.93	13.78	10.78
32-13P	8.11	7.81	8.04	8.04	6.37	9.00	8.81	12.67	9.67
32-13S	8.11	7.81	8.04	8.04	6.37	9.00	8.81	12.67	9.67
32-15P	9.00	8.70	8.93	8.93	7.26	9.89	9.70	13.56	10.56
32-15S	8.96	8.67	8.89	8.89	7.22	9.85	9.67	13.52	10.52
32-16P	8.67	8.37	8.59	8.59	6.93	9.56	9.37	13.22	10.22
32-16S	10.81	10.52	10.74	10.74	9.07	11.70	11.52	15.37	12.37
32-17P	8.04	7.74	7.96	7.96	6.30	8.93	8.74	12.59	9.59
32-17S	8.96	8.67	8.89	8.89	7.22	9.85	9.67	13.52	10.52
32-18P	5.48	5.19	5.41	5.41	3.74	6.37	6.19	10.04	7.04
32-18S	6.37	6.07	6.30	6.30	4.63	7.26	7.07	10.93	7.93
32-19P	6.63	6.33	6.56	6.56	4.89	7.52	7.33	11.19	8.19
32-19S	8.37	8.07	8.30	8.30	6.63	9.26	9.07	12.93	9.93
32-20P	8.67	8.37	8.59	8.59	6.93	9.56	9.37	13.22	10.22
32-20S	10.81	10.52	10.74	10.74	9.07	11.70	11.52	15.37	12.37

SHELL	AN3100		AN3101		AN3102	AN3106		AN3108	
INSERT	A	B	A	B	A	A	B	A	B
36-1P	8.52	8.07	9.00	8.89	6.37	12.11	9.41	13.22	9.67
36-1S	8.41	7.96	8.89	8.78	6.26	12.00	9.30	13.11	9.56
36-2P	8.41	7.96	8.89	8.78	6.26	12.00	9.30	13.11	9.56
36-2S	10.63	10.19	11.11	11.00	8.48	14.22	11.52	15.33	11.78
36-3P	8.52	8.07	9.00	8.89	6.37	12.11	9.41	13.22	9.67
36-3S	10.96	10.52	11.44	11.33	8.81	14.56	11.85	15.67	12.11
36-4P	8.93	8.48	9.41	9.30	6.78	12.52	9.81	13.63	10.07
36-4S	11.00	10.56	11.48	11.37	8.85	14.59	11.89	15.70	12.15
36-5P	9.26	8.81	9.74	9.63	7.11	12.85	10.15	13.96	10.41
36-5S	11.70	11.26	12.19	12.07	9.56	15.30	12.59	16.41	12.85
36-6P	11.30	10.85	11.78	11.67	9.15	14.89	12.19	16.00	12.44
36-6S	14.22	13.78	14.70	14.59	12.07	17.81	15.11	18.93	15.37
36-7P	10.48	10.04	10.96	10.85	8.33	14.07	11.37	15.19	11.63
36-7S	11.37	10.93	11.85	11.74	9.22	14.96	12.26	16.07	12.52
36-8P	9.33	8.89	9.81	9.70	7.19	12.93	10.22	14.04	10.48
36-8S	10.70	10.26	11.19	11.07	8.56	14.30	11.59	15.41	11.85
36-9P	11.19	10.74	11.67	11.56	9.04	14.78	12.07	15.89	12.33
36-9S	13.26	12.81	13.74	13.63	11.11	16.85	14.15	17.96	14.41
36-10P	9.44	9.00	9.93	9.81	7.30	13.04	10.33	14.15	10.59
36-10S	10.70	10.26	11.19	11.07	8.56	14.30	11.59	15.41	11.85
36-11P	9.44	9.00	9.93	9.81	7.30	13.04	10.33	14.15	10.59
36-11S	10.70	10.26	11.19	11.07	8.56	14.30	11.59	15.41	11.85
36-12P	9.44	9.00	9.93	9.81	7.30	13.04	10.33	14.15	10.59
36-12S	10.70	10.26	11.19	11.07	8.56	14.30	11.59	15.41	11.85
36-13P	9.22	8.78	9.70	9.59	7.07	12.81	10.11	13.93	10.37
36-13S	8.48	8.04	8.96	8.85	6.33	12.07	9.37	13.19	9.63
36-14P	11.96	11.52	12.44	12.33	9.81	15.56	12.85	16.67	13.11
36-14S	12.93	12.48	13.41	13.30	10.78	16.52	13.81	17.63	14.07
36-15P	8.07	7.63	8.56	8.44	5.93	11.67	8.96	12.78	9.22
36-15S	9.56	9.11	10.04	9.93	7.41	13.15	10.44	14.26	10.70
36-16P	10.48	10.04	10.96	10.85	8.33	14.07	11.37	15.19	11.63
36-16S	11.37	10.93	11.85	11.74	9.22	14.96	12.26	16.07	12.52
36-17P	10.48	10.04	10.96	10.85	8.33	14.07	11.37	15.19	11.63
36-17S	11.37	10.93	11.85	11.74	9.22	14.96	12.26	16.07	12.52
36-18P	11.19	10.74	11.67	11.56	9.04	14.78	12.07	15.89	12.33
36-18S	13.26	12.81	13.74	13.63	11.11	16.85	14.15	17.96	14.41
36-21P	11.19	10.74	11.67	11.56	9.04	14.78	12.07	15.89	12.33
36-21S	13.26	12.81	13.74	13.63	11.11	16.85	14.15	17.96	14.41
36-853P	7.63	7.19	8.11	8.00	5.48	11.22	8.52	12.33	8.78
36-853S	8.11	7.67	8.59	8.48	5.96	11.70	9.00	12.81	9.26
40-1P	10.15	8.70	10.15	9.52	6.74	13.04	11.48	N.A.	11.93
40-1S	11.52	10.07	11.52	10.89	8.11	14.41	12.85	N.A.	13.30
40-2P	8.89	7.44	8.89	8.26	5.48	11.78	10.22	N.A.	10.67
40-2S	10.00	8.56	10.00	9.37	6.59	12.89	11.33	N.A.	11.78
40-3P	11.96	10.52	11.96	11.33	8.56	14.85	13.30	N.A.	13.74
40-3S	13.63	12.19	13.63	13.00	10.22	16.52	14.96	N.A.	15.41
40-4P	14.70	13.26	14.70	14.07	11.30	17.59	16.04	N.A.	16.48
40-4S	16.19	14.74	16.19	15.56	12.78	19.07	17.52	N.A.	17.96
40-5P	15.67	14.22	15.67	15.04	12.26	18.56	17.00	N.A.	17.44
40-5S	20.93	19.48	20.93	20.30	17.52	23.81	22.26	N.A.	22.70
40-6P	13.00	11.56	13.00	12.37	9.59	15.89	14.33	N.A.	14.78
40-6S	11.81	10.37	11.81	11.19	8.41	14.70	13.15	N.A.	13.59
40-7P	13.93	12.48	13.93	13.30	10.52	16.81	15.26	N.A.	15.70
40-7S	14.41	12.96	14.41	13.78	11.00	17.30	15.74	N.A.	16.19
40-9P	17.41	15.96	17.41	16.78	14.00	20.30	18.74	N.A.	19.19
40-9S	15.63	14.19	15.63	15.00	12.22	18.52	16.96	N.A.	17.41
40-10P	18.00	16.56	18.00	17.37	14.59	20.89	19.33	N.A.	19.78
40-10S	20.85	19.41	20.85	20.22	17.44	23.74	22.19	N.A.	22.63
40-11P	11.41	9.96	11.41	10.78	8.00	14.30	12.74	N.A.	13.19
40-11S	13.15	11.70	13.15	12.52	9.74	16.04	14.48	N.A.	14.93
40-13P	8.89	7.44	8.89	8.26	5.48	11.78	10.22	N.A.	10.67
40-13S	10.00	8.56	10.00	9.37	6.59	12.89	11.33	N.A.	11.78
44-1P	13.70	12.26	13.70	12.96	10.19	17.96	16.48	N.A.	15.07
44-1S	14.15	12.70	14.15	13.41	10.63	18.41	16.93	N.A.	15.52
44-2P	13.89	12.44	13.89	13.15	10.37	18.15	16.67	N.A.	15.26
44-2S	16.70	15.26	16.70	15.96	13.19	20.96	19.48	N.A.	18.07
44-3P	13.93	12.48	13.93	13.19	10.41	18.19	16.70	N.A.	15.30
44-3S	16.52	15.07	16.52	15.78	13.00	20.78	19.30	N.A.	17.89
44-4P	13.44	12.00	13.44	12.70	9.93	17.70	16.22	N.A.	14.81
44-4S	16.22	14.78	16.22	15.48	12.70	20.48	19.00	N.A.	17.59
44-5P	13.70	12.26	13.70	12.96	10.19	17.96	16.48	N.A.	15.07
44-5S	14.15	12.70	14.15	13.41	10.63	18.41	16.93	N.A.	15.52
44-6P	13.70	12.26	13.70	12.96	10.19	17.96	16.48	N.A.	15.07
44-6S	14.15	12.70	14.15	13.41	10.63	18.41	15.93	N.A.	15.52
48-1P	18.52	N.A.	18.52	N.A.	13.41	23.41	N.A.	N.A.	22.30
48-1S	22.52	N.A.	22.52	N.A.	17.41	27.41	N.A.	N.A.	26.30

WITH SCREW TERMINALS

WITH TWO-SIDED SOLDER TERMINALS

WITH ONE-SIDED SOLDER TERMINALS

WITH BOTTOM SOLDER TERMINALS

CINCH-JONES and KULKA

Barrier Terminal Strips

Molded black bakelite bases, brass nickel-plated terminals and binder screws are standard on all types.

Fanning Strips with cable clamps on either right or left are available for connection to strips. They simplify harness wiring and assure positive connections.

Marker Strips for imprinting your own designations and insulating barriers when mounted on metal surfaces are available for all strips.

TYPE AND SIZE CODE

Cinch-Jones Type No.	Kulka Equivalent Type No.	H. x W.	Binder Head Screw Size	Metal to Metal Spacing Over Bakelite
140	600	13/32"x7/8"	5-40x3/16"	1/4"
141	601	1/2"x1 1/8"	6-32x1/4"	3/8"
142	602	5/8"x1 5/16"	8-32x5/16"	1/16"
150	603	25/32"x1 13/16"	10-32x3/8"	5/8"
151	604	15/16"x2"	12-32x3/8"	3/4"
152	605	1 1/8"x2 1/2"	1/4"-28x1/2"	1"

Cinch-Jones 140 Series — Kulka 600 Series

No. Terminals	Fig. A Net Ea.	Figs. B, C & D Net Ea.	Fanning Strips Right or Left For All Types Net Ea.	Marker Strips For Figs. A, B & C Net Ea.	Marker Strips Fig. D Net Ea.
1	$.09	$.11		$.02	$.04
2	.14	.19	$.08	.025	.05
3	.20	.26	.12	.03	.05
4	.24	.33	.15	.035	.06
5	.30	.40	.19	.04	.06
6	.34	.49	.23	.05	.07
7	.40	.56	.26	.05	.075
8	.45	.64	.30	.06	.08
9	.51	.72	.33	.06	.085
10	.56	.79	.37	.07	.09
11	.61	.86	.41	.075	.10
12	.66	.93	.45	.08	.105
13	.72	1.01	.49	.085	.11
14	.77	1.08	.52	.09	.115
15	.82	1.38	.57	.10	.12
16	.87	1.23	.60	.105	.125
17	.92	1.31	.64	.11	.13
18	.98	1.38	.69	.115	.14
19	1.03	1.45	.71	.12	.145
20	1.08	1.53	.75	.125	.15
21	1.14	1.60	.78	.13	.155
22	1.19	1.69		.14	.16

Cinch-Jones 141 Series — Kulka 601 Series

No. Terminals	Fig. A Net Ea.	Figs. B, C & D Net Ea.	Fanning Strips Right or Left For All Types Net Ea.	Marker Strips For Figs. A, B & C Net Ea.	Marker Strips Fig. D Net Ea.
1	$.12	$.14		$.02	$.04
2	.19	.24	$.08	.03	.05
3	.24	.33	.12	.035	.06
4	.31	.43	.16	.04	.065
5	.38	.53	.20	.05	.07
6	.44	.63	.23	.06	.08
7	.52	.72	.27	.065	.09
8	.58	.82	.30	.07	.095
9	.65	.92	.34	.08	.10
10	.71	1.02	.38	.09	.11
11	.78	1.11	.42	.095	.12
12	.84	1.22	.45	.10	.125
13	.92	1.31	.49	.11	.13
14	.98	1.40	.54	.12	.14
15	1.05	1.50	.57	.125	.15
16	1.12	1.60	.61	.13	.153
17	1.19	1.70	.64	.14	.16
18	1.25	1.80	.69	.15	.17
19	1.31	1.89	.71	.155	.18
20	1.38	1.99	.75	.16	.19
21	1.45	2.09		.18	.195
22	1.52	2.19		.19	.20
23	1.59	2.29		.20	.21

Cinch-Jones 142 Series — Kulka 602 Series

No. Terminals	Fig. A Net Ea.	Figs. B, C & D Net Ea.	Fanning Strips Right or Left For All Types Net Ea.	Marker Strips For Figs. A, B & C Net Ea.	Marker Strips Fig. D Net Ea.
1	$.14	$.18		$.02	$.045
2	.22	.29	$.10	.03	.05
3	.30	.41	.14	.04	.06
4	.38	.53	.17	.05	.07
5	.46	.66	.21	.06	.08
6	.54	.77	.25	.07	.09
7	.63	.89	.29	.08	.10
8	.70	1.01	.32	.09	.11
9	.78	1.14	.36	.10	.12
10	.87	1.25	.40	.11	.13
11	.95	1.38	.43	.12	.14
12	1.04	1.49	.47	.125	.15
13	1.12	1.30	.51	.135	.16
14	1.20	1.74	.55	.145	.17
15	1.28	1.85	.58	.155	.18
16	1.36	1.96	.63	.16	.19
17	1.44	2.08	.66	.17	.20
18	1.51	2.20		.18	.20
19	1.63	2.34		.19	.21
20	1.70	2.47		.20	.22
21	1.78	2.59		.21	.23
22	1.87	2.72		.22	.24
23	1.95	2.84		.23	.25
24	2.04	2.96		.24	.26
25	2.13	3.09		.25	.27
26	2.21	3.21		.26	.28

Cinch-Jones 150 Series — Kulka 603 Series

No. Terminals	Fig. A. Net Ea.	Fig. B. & C. Net Ea.	Marker Strips Net Ea.
1	$ .32	$ .39	$ .05
2	.55	.67	.06
3	.77	.94	.07
4	1.01	1.22	.08
5	1.23	1.48	.09
6	1.46	1.76	.10
7	1.68	2.03	.11
8	1.91	2.30	.12
9	2.14	2.59	.13
10	2.36	2.82	.14

Cinch-Jones 151 Series — Kulka 604 Series

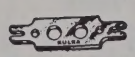
No. Terminals	Fig. A. Net Ea.	Fig. B. & C. Net Ea.	Marker Strips Net Ea.
1	$ .55	$ .65	$ .05
2	1.01	1.18	.07
3	1.46	1.71	.09
4	1.91	2.24	.12
5	2.36	2.76	.14
6	2.81	3.30	.16
7	3.28	3.81	.18
8	3.72	4.35	.21

Cinch-Jones 152 Series — Kulka 605 Series

Terminals No.	Net Ea. Fig. A.	Net Ea. Fig. B. & C.	Net Ea. Strips Marker
1	$ .74	$ .87	$ .06
2	1.42	1.68	.09
3	2.11	2.52	.13
4	2.78	3.36	.17
5	3.46	4.20	.21
6	4.14	4.98	.25

KULKA

Terminal Lugs For Barrier Strip Use

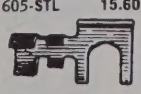


TWO-SIDED LUG

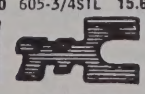
ONE-SIDED LUG

BENT LUG

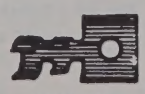
No.	Net Per C.	No.	Net Per C	No.	Net Per C.
600-STL	$2.64	600-3/4STL	$2.64	600-YL	$2.64
601-STL	3.54	601-3/4STL	3.54	601-YL	3.54
602-STL	4.32	602-3/4STL	4.32	602-YL	4.32
603-STL	6.00	603-3/4STL	6.00		
604-STL	10.80	604-3/4STL	10.80		
605-STL	15.60	605-3/4STL	15.60		



FLAG LUG



SPADE LUG



HOLE LUG

No.	Net Per M.	No.	Net Per M.	No.	Net Per M
600-SLF	$12.00	600-SLS	$12.00	600-SLH	$12.00
601-SLF	12.60	601-SLS	12.60	601-SLH	12.60
602-SLF	13.80	602-SLS	13.80	602-SLH	13.80
603-SLF	27.00	603-SLS	27.00	603-SLH	27.00

CINCH-JONES

Series 2000 Terminal Strips

Compact and sturdy junction terminal strips. Terminals .019" brass tin-plated, insulation bakelite, brackets steel cadmium-plated. Terminals spaced on 5/16" centers.

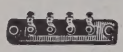
No. Terminals	Cat. No.	Mtg. Hole Centers	Net per 100
2	2002	1"	$5.30
3	2003	1 5/16"	5.80
4	2004	1 5/8"	6.40
5	2005	1 15/16"	6.80
6	2006	2 1/4"	7.40
7	2007	2 9/16"	7.80
8	2008	2 7/8"	8.30
9	2009	3 3/16"	8.90
10	2010	3 1/2"	9.40
11	2011	3 13/16"	9.80
12	2012	4 1/8"	10.40
13	2013	4 7/16"	10.90

CINCH-JONES

170 Series Terminal Strips

Heavy .032" brass, tin-plated solder terminals mounted on molded black bakelite 5/16" wide x 1/4" thick. Terminals mounted on 3/8" from center of end terminals.

No. Terminals	Cat. No.	Net Ea.
1	1-170	$ .14
2	2-170	.17
3	3-170	.20
4	4-170	.23
5	5-170	.27
6	6-170	.31
7	7-170	.33
8	8-170	.37
9	9-170	.40
10	10-170	.43



MILLEN

TERMINAL STRIP

A sturdy four-terminal strip of molded black Textolite. Barriers between contacts. "Non turning" studs, threaded 8/32 each end.

No. 37104..... $ .69 Net Ea.

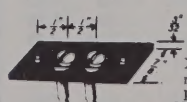
MILLEN

STEATITE TERMINAL STRIPS

Terminal and lug are one piece. Lugs are Navy turret type and are free floating so as not to strain steatite during wide temperature variations. Easy to mount with series of round holes for integral chassis bushings.

	Net Ea.
No. 37302.....	$ .69
No. 37303.....	.78
No. 37304.....	.90
No. 37305.....	1.05
No. 37306.....	1.14

SMITH



HEAVY DUTY TERMINAL BOARDS

XP Bakelite, 8-32 x 5/8" Brass nickel plated screws. Supplied imprinted 1 thru 12.

No.	Terminals	Mtg. Center	Net Ea.	No.	Terminals	Mtg. Center	Net Ea.
901	1	1"	$ .10	907	7	4"	$ .32
902	2	1 1/2"	.14	908	8	4 1/2"	.35
903	3	2"	.17	909	9	5"	.39
904	4	2 1/2"	.21	910	10	5 1/2"	.43
905	5	3"	.25	911	11	6"	.46
906	6	3 1/2"	.28	912	12	6 1/2"	.49

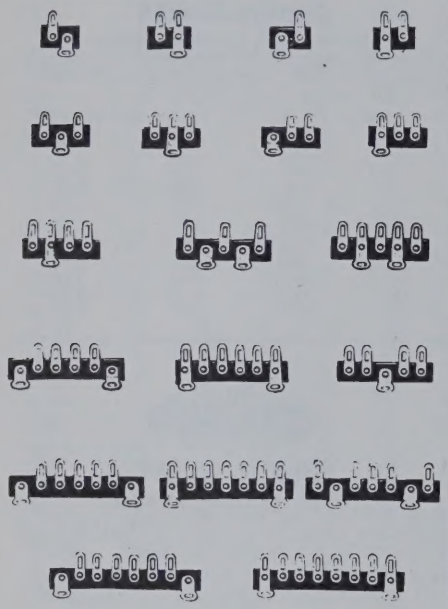
PLATE CAPS

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

EBY
INSULATED TERMINAL STRIPS

Lug type terminal strips for supporting resistors, condensers and other components in circuit wiring. Brass cadmium plated lugs firmly locked into bakelite 1/16" thick by 3/8" wide. Lugs are spaced on 3/8" centers.



Eby No.	Description	Net Ea.	Net Per 100
T 10	1 Term. 1 Bracket	$ .02	$1.80
T 10 A	1 Term. 1 Term. Bkt.	.02	1.80
T 13	1 Term. 1 Bracket	.02	1.80
T 13 A	1 Term. 1 Term. Bkt.	.02	1.80
T 11	1 Term. 1 Bracket	.02	1.80
T 12	1 Term. 1 Bracket	.02	1.80
T 14	1 Dbl. Term. 1 Bkt.	.03	2.10
T 20	2 Term. 1 Bracket	.03	2.10
T 20 A	2 Term. 1 Term. Bkt.	.03	2.10
T 21	2 Term. 1 Bracket	.03	2.10
T 21 A	2 Term. 1 Term. Bkt.	.03	2.10
T 22	2 Dbl. Term. 1 Bkt.	.04	3.45
T 25	2 Term. 1 Bracket	.03	2.10
T 26	2 Term. 1 Bracket	.03	2.10
T 29	2 Term. 1 Bracket	.03	2.10
T 29 A	2 Term. 1 Term. Bkt.	.03	2.10
T 31	3 Term. 1 Bracket	.035	2.70
T 31 A	3 Term. 1 Term. Bkt.	.035	2.70
T 32	3 Term. 1 Bracket	.035	2.70
T 32 A	3 Term. 1 Term. Bkt.	.035	2.70
T 34	3 Term. 1 Bracket	.035	2.70
T 34 A	3 Term. 1 Term. Bkt.	.035	2.70
T 35	3 Term. 1 Bracket	.035	2.70
T 35 A	3 Term. 1 Term. Bkt.	.035	2.70
T 36	2 Term. 2 Brackets	.035	2.70
T 36 A	2 Term. 2 Term. Bkts.	.035	2.70
T 30	3 Term. 2 Brackets	.04	3.45
T 30 A	3 Term. 2 Term. Bkts.	.04	3.45
T 42	4 Term. 1 Bracket	.04	3.45
T 42 A	4 Term. 1 Term. Bkt.	.04	3.45
T 44	3 Term. 2 Brackets	.04	3.45
T 44 A	3 Term. 2 Term. Bkts.	.04	3.45
T 46	4 Term. 1 Bracket	.04	3.45
T 46 A	4 Term. 1 Term. Bkt.	.04	3.45
T 40	4 Term. 2 Brackets	.05	4.20
T 40 A	4 Term. 2 Term. Bkts	.05	4.20
T 48	5 Term. 1 Bracket	.05	4.20
T 48 A	5 Term. 1 Term. Bkt.	.05	4.20
T 50	5 Term. 2 Brackets	.055	4.95
T 50 A	5 Term. 2 Term. Bkts.	.055	4.95
T 70	6 Term. 1 Bracket	.055	4.95
T 70 A	6 Term. 1 Term. Bkt.	.055	4.95
T 60	6 Term. 2 Brackets	.06	5.85
T 60 A	6 Term. 2 Term. Bkts.	.06	5.85
T 61	6 Term. 2 Brackets	.06	5.85
T 61 A	6 Term. 2 Term. Bkts.	.06	5.85
T 80	8 Term. 3 Brackets	.085	8.10
T 81	8 Term. 2 Brackets	.08	7.50

AMPHENOL
UNIVERSAL GRID CAP

For use with tube grid caps from 1/4" to 3/8" diameter.

Cat. No.	AMPHENOL Number	Description	Net Ea. 1-99	Net Ea. Per 100
	63-1	Black grid cap		
	63-1		.10	.085

MILLEN PLATE CAPS
CERAMIC PLATE OR GRID CAPS

Soldering lug and contact one-piece. Lug ears annealed and solder dipped to facilitate easy combination "mechanical plus soldered" connection of cable.

		Net Ea.
No. 36001	—9/16"	$ .24
No. 36002	—3/8"	.24
No. 36004	—1/4"	.24

SNAP LOCK PLATE CAP

For Mobile, Industrial and other applications where tighter than normal grip with multiple finger 360° low resistance contact is required. Contact self-locking when cap is pressed into position. Insulated snap button at top releases contact grip for easy removal without damage to tube.

		Net Ea.
No. 36011	—9/16"	$ .69
No. 36012	—3/8"	.75

MILLEN
CATHODE RAY TUBE SHIELDS

For many years we have specialized in the design and manufacture of magnetic metal shields of nicoloi and mumetal for cathode ray tubes in our own complete equipment, as well as for applications of all other principal complete equipment manufacturers. Stock types as well as special designs to customers' specifications promptly available.

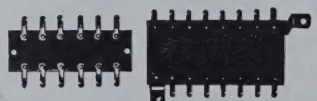
		Net Ea.
No. 80045	—Nicoloi for 5BP1	$11.76
No. 80055	—Nicoloi for 5CP1	11.76
No. 80043	—Nicoloi for 3" tube	6.75
No. 80042	—Nicoloi for 2" tube	5.85

MILLEN
BEZELS FOR CATHODE RAY TUBES

Standard types are of satin finish black plastic. 5" size has neoprene support cushion and green lucite filter. 3" and 2" sizes have integral cushioning.

		Net Ea.
No. 80075	—5"	$8.40
No. 80073	—3"	4.35
No. 80072	—2"	1.44
No. 80071	—1"	1.44

MILLER
Bakelite Terminal Plates



These terminal plates, provided with securely riveted solder type terminal lugs, are particularly adaptable to the assembly of groups of resistors and by-pass condensers. They will facilitate wiring of the chassis and provide rigid mounting of parts which cannot be properly assembled by point-to-point wiring. Lugs are on 1/16" thick bakelite sheet stock and the terminal spacing is 7/16".

Cat. No.	Dimensions	Lugs per Side	Net Ea.
420	1" x 3"	6	$.24
430	1¾" x 2½"	5	.27
440	1" x 5¾"	14	.36
450	1¾" x 3¾"	8	.45
460	1¾" x 5¼"	11	.51
470	1¾" x 8⅜"	19	.72

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

NATIONAL
SAFETY GRID AND PLATE CAPS

SPP-9

Ceramic insulation. Fits 9/16" diameter. **$ .24 Net Ea.**

SPP-3

Ceramic insulation. Fits 3/8" diameter. National Safety Grid and Plate Caps have a ceramic body which offers protection against accidental contact with high voltage caps on tubes. **$ .24 Net Ea.**

National NC

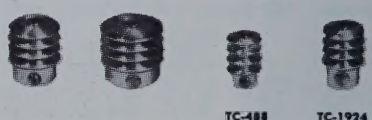
GRID AND PLATE GRIPS

Type 12, for 9/16" Caps **$ .07 Net Ea.**

Type 24, for 3/8" Caps **$ .04 Net Ea.**

Type 8, for 1/4" Caps

National Grid and Plate Grips provide a secure and positive contact with the tube cap and yet are released easily by a slight pressure on the ear. **$ .04 Net Ea.**



TC-1925 TC-1921 TC-1926 TC-488 TC-487 TC-489 TC-1924 TC-1920 TC-1923

BUD
Heat Radiating Plate And Grid Tube Connectors

Bud heat radiating connectors fit all sizes of industrial and transmitting vacuum tubes. These connectors serve a dual purpose. Not only are they useful for making connections to plate or grid terminals, but they provide a large heat radiating surface that will dissipate heat from the glass seal and tube element.

Eight sizes fit all grid and plate leads and also provide sufficient heat radiation for any tube operating in the range of 50 to 2000 watts. All radiators are machined from special aluminum rods. Edges are rounded to minimize corona loss.

Catalog No.	Hole Size For Lead	Heat Radiating Connectors To Fit the Following Tubes	Net Ea.
TC-488	.052	3C24 — 24 — 24G — 25T — 27	$ .48
TC-487	.062	UH50 — HK24 — 304B — 829B — 832A — 834	.42
TC-489	.072	35T — 35TG — 75TH — HK257B — HK254 — 484 — 8001 — 4E27	.42
TC-1924	.125	HK57 — 152TH	.48
TC-1920	.375	4-125A — 150TH — 2-150D — 250R — 250TH — 250TL — 420A — 802 — 803 — 804 — 807 — 808 Grid — 814 — 815 — 828 — 2E24 — 2E26 — 3E22 — 4-65A — 4-250A — 816 — 6146 — 1625 — 4D32 — 807W — 183GT — 6BG6G — 6CD6G	.48
TC-1925	.125	304TH — 304TL	.60
TC-1921	.570	Z860 — HF60 — HF100 — 111 — 211H — 203H — HF175 — HF300 Grid — 100R — HK375C — 450TH — 454 — 750TH — 805 — 806 — 808 — 809 — 810 — 811 — 812 — 813 — 828 — 833 — 866 — 854 — 1500T — 2000T — 1054 — 5331 — 5332 — 8000 — 8003 — 8005	.54
TC-1926	.810	WL468 — WL463 — WL460 — HF200 — HF201 — HF300	.78

NOTE—TC-1923 Heat Radiating Connector with hole size of .110" is still in our line and can be furnished. .48

CINCH SOCKETS

MOLDED OCTAL 1-5/16" MOUNTING CENTERS

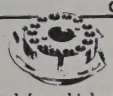
Molded from high dielectric black bakelite or mica-filled low loss bakelite. Solder coated brass contacts and sturdy steel press-on type saddle with 4 ground lugs. Mounts in 1" chassis hole.

No.	Description	Net Each
8AB	Black	$ .10
8AM	Mica-Filled	.15

MOLDED OCTAL 1½" MOUNTING CENTERS

Same as 8A series molded octal to left except has clinch-on type saddle with 4 ground lugs and mounts in 1⅛" chassis hole. Available in black, mica filled bakelite, or ceramic.

No.	Description	Net Each
8EB	Black	$ .10
8EM	Mica-Filled	.15
8EC	Ceramic	.34



DIHEPTAL 14 PRONG

Molded from high dielectric black bakelite or mica-filled low loss bakelite. 2-7/32" wide and 1⅛" high. Possesses same features as Cinch Magnal socket shown above.

No.	Description	Net Each
3B14	Black socket	$1.48
3M14	Mica socket	1.86
3R14	Steel mounting ring	.31

MAGNAL—11 PRONG

Molded from mica-filled low loss bakelite. Socket is 1-23/32" wide and 1-9/64" high. Full floating silver plated beryllium copper contacts designed to insure easy insertion of tubes and yet provide excellent electrical connections. For use with 5BP1 and 2AP1 type cathode ray tubes.

No.	Description	Net Each
3M11	Mica socket	$4.46
3R11	Steel mounting ring	.31

110-250 VOLT SOCKET (Underwriters Listed)

When space is at a premium use this 110-250 volt 2 prong socket. Rated at 15 Amp., 110 V. or 10 amp., 250 V. Molded from high dielectric black bakelite. Solder coated brass contacts on ½" centers designed to accept any 2 prong standard electric plug. Mounts in 25/64" X 25/32" hole. .144 diameter mounting holes on 1⅛" centers. Ideal for radio chassis and many other applications.

No.	Net Each
2R2	$ .15

CINCH PLUG-IN CAPACITOR SOCKETS

Designed for use with twist prong capacitors for applications requiring instant replacement, such as motion picture, telephone, airborne radio, broadcast equipment, electric organs, etc. Steel saddle mounted.

Cat. No.	Description	Mtg. Center	Net Ea.
2C5	Use with 3 prong 1" twist prong cap.	1-1/2"	$.37
2C7	Use with 4 prong 1-3/8" twist prong cap.	1-27/32"	.46

AMPHENOL

MAGIC EYE ASSEMBLIES

Completely wired with escutcheon and hardware. Tube not included with either.

AMPHENOL Number	Description
58-MEA6	6 contact type
58-MEA8	8 contact octal type

MAGIC EYE ASSEMBLIES

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
58-MEA6	1.14	.95
58-MEA8	1.56	1.30

CINCH 7-PIN MINIATURE SOCKETS & SHIELDS

MOLDED SADDLE TYPE

Top Mount

Molded from high dielectric black bakelite or mica-filled low loss bakelite, Cadmium plated steel saddle with 7/8" mounting centers and .093 diameter mounting holes. Solder coated brass contacts. Designed for mounting through top of chassis in 5/8" diameter hole. Will securely hold all standard seven pin miniature tubes. Also available in ceramic.

No.	Description	Net Each
7ABI	Black	$ .14
7AMI	Mica	.19

Bottom Mount

Molded from high dielectric black bakelite or mica filled low loss bakelite. Cadmium plated steel saddle with 7/8" mounting centers. .093 diameter mounting holes. Solder coated positive grip brass contacts. Designed for mounting through bottom of chassis in 5/8" diameter hole. For use with all standard seven pin miniature tubes. Also available in ceramic.

No.	Description	Net Each
7EB	Black	$ .14
7EM	Mica-Filled	.19

SHIELD BASE TYPE

Shield base is attached to socket body for mounting through top of chassis. Molded from high dielectric black bakelite, mica-filled low loss bakelite or ceramic material. Solder coated brass contacts and center shield. Cadmium plated steel shield base with 7/8" mounting centers. Use No. 7S2, 7S3, or 7S4 shields illustrated below with these sockets.

No.	Description	Net Each
7XB1	Black	$ .25
7XM1	Mica-filled bakelite	.29
7XC	Ceramic	.49

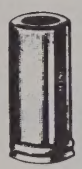
Molded from mica filled low loss bakelite or ceramic material. Shield base is attached to socket body for mounting through top of chassis. Same type as illustrated at the left. Materials and finishes are those required by JAN-S-28A Specifications. Shield base has 7/8" mounting centers. Use No. 7SJ2, 7SJ3 or 7SJ4 shields as shown below.

No.	Description	JAN Type No.	Net Each
7JC	Ceramic	TS102C01	$ .64
7JM	Mica	TS102P01	.47

TUBE SHIELDS — "J" SLOT TYPE

Durable steel shields complete with tube securing spring. "J" slot feature designed to fit securely with Cinch shield base type sockets, such as 7X series shown above. Also fit 7SB type shield bases shown below. Available in three lengths.

No.	Description	Net Each
7S2	1⅜" Long	$ .13
7S3	1¾" Long	.13
7S4	2¼" Long	.19



TUBE SHIELD Snap-On Type

Shield fits over and outside of shield base. Indentation on shield locks into ridge on base of 7SB3 as shown above.

No.	Description	Net Each
7S1	1-53/64" High	$ .08

SHIELD BASES FOR ABOVE SHIELDS

No. 7SB3

For Snap-On Type

Base is made of hardened carbon steel supplying adequate spring retentivity on shield. Base has 7/8" mounting centers with mounting holes that coincide with those for miniature 7 pin sockets as established by R. M. A. standards. For use with saddle type sockets with 7/8" mounting centers illustrated on this page.

No.	Description	Net Each
7SB3	11/32" High	$ .04

No. 7SB

For J Slot Type

Durable steel shield bases designed for use with "J" slot type shields illustrated above. Available in two sizes: 7/16" high or 5/8" high. Both types have 7/8" mounting centers.

No.	Description	Material	Net Each
7SB	7/16" High	Steel	$ .13
7SB1	5/8" High	Steel	.13
7SB2	5/8" High	Brass	.25

CINCH 9-PIN MINIATURE SOCKETS & SHIELDS

MOLDED — SADDLE TYPE BOTTOM MOUNT

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Designed for mounting through bottom of chassis in 3/4" diameter hole. 1⅛" mounting centers with .093 diameter mounting holes. Solder coated brass contacts and center shield.

No.	Description	Net Each
9EB	Black	$ .22
9EM	Mica-filled bakelite	.25

MOLDED — SADDLE TYPE TOP MOUNT

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Designed for mounting through top of chassis in 3/4" diameter hole. 1⅛" mounting centers with .093 diameter mounting holes. Solder coated brass contacts and center shield.

No.	Description	Net Each
9AB	Black	$ .22
9AM	Mica-Filled	.25

SHIELD BASE TYPE

Molded from high dielectric black bakelite, mica-filled low loss bakelite, or ceramic material. One piece cadmium plated steel shield base and saddle with .093 diameter mounting holes on 1⅛" centers. Solder coated brass contacts and center shield. Mounts through top of chassis in 3/4" diameter hole. Use 9S type shields with these sockets.

No.	Description	Mtg. Hole	Net Each
9XB	Black	.093	$ .37
9XM	Mica	.093	.40
9XC	Ceramic	.093	.56

Molded from mica low loss bakelite or ceramic material. Shield is attached to socket body for mounting through top of chassis. Same type as illustrated at the left. Materials and finishes are those required by JAN-S-28A specifications Use No. 9SJ1, 9SJ2, or 9SJ3 shields as shown below.

No.	Description	Mtg. Hole	JAN Type No.	Net Each
9JM	Mica	.125	TS103P01	$ .55
9JC	Ceramic	.125	TS103C01	.73

TUBE SHIELDS

Made from durable steel. Complete with tube securing spring. "J" slot feature designed to fit securely with Cinch 9X series shield base type sockets illustrated above. Will also fit No. 9SB1 shield base to right. Available in three lengths.

No.	Description	Net Each
9S1	1½" Long	$ .20
9S2	1⅞" Long	.22
9S3	2⅜" Long	.27

Durable brass nickel plated shields with tube securing spring. "J" slot feature designed to fit securely with the shield type sockets listed below. Materials and finishes are those required by JAN-S-28A specifications. Available in the sizes listed below.

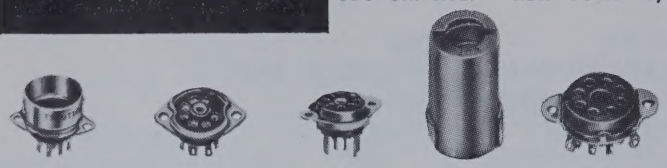
No.	Description	JAN Type No.	Net Each
9SJ1	1½" Long	TS103U01	$ .27
9SJ2	1⅞" Long	TS103U02	.30
9SJ3	2⅜" Long	TS103U03	.33

SHIELD BASE

No. 9SB1

Net Each $ .17

Durable steel shield base designed for use with shields illustrated above. 1⅛" mounting centers. May be used with any 9 pin wafer or saddle type sockets shown above. Has ⅛" dia. mounting holes.



A B C D E

EBY
JAN S-28A SOCKET — SHIELDS

EBY's JAN sockets and shields have been developed in conjunction with Army, Navy and Air Force Engineers to meet exacting military standards and are warranted to comply with JAN-S28A and A1 specifications.

Fig	S-28 A	S-28 A1	EBY No.	Description	Net Each
A	TSE 7T 102	TS 102 C01	9715	7 Pin Shield Base, Ceramic	$ .41
B		TS 102 C02	9726-60	7 Pin Cer. Top Sad. Mt.	.32
C		TS 102 C03	9727-160	7 Pin Cer. Bot. Sad. Mt.	.32
A	TSE 7T 101	TS 102 P01	9736	7 Pin Shield Base Mica-Filled	.29
B		TS 102 P02	9726-61	7 Pin Mica-Filled Top Mt. Saddle	.19
C		TS 102 P03	9727-161	7 Pin Mica-Filled Bot. Mt. Saddle	.19
A	TSE 9T 102	TS 103 C01	9717	9 Pin Shield Base Ceramic	.55
B		TS 103 C02	9739-36	9 Pin Cer. Top Mt. Saddle	.49
C		TS 103 C03	9713-160	9 Pin Cer. Bot. Mt. Saddle	.49
A	TSE 9T 101	TS 103 P01	9718	9 Pin Shield Base Mica-Filled	.41
B		TS 103 P02	9739-32	9 Pin Mica-Filled Top Mt. Saddle	.22
C		TS 103 P03	9713-161	9 Pin Mica-Filled Bot. Mt. Saddle	.22
D	TSF 0T 101	TS 102 U01	9700	7 Pin Tube Shield—1 3/8"	.15
D	TSF 0T 102	TS 102 U02	9701	7 Pin Tube Shield 1 3/4"	.15
D	TSF 0T 103	TS 102 U03	9702	7 Pin Tube Shield—2 1/4"	.19
D	TSF 0T 104	TS 103 U01	9703	9 Pin Tube Shield—1 1/2"	.19
D	TSF 0T 105	TS 103 U02	9704	9 Pin Tube Shield—1-15/16"	.20
D	TSF 0T 106	TS 103 U03	9710	9 Pin Tube Shield—2 3/8"	.24
E	TSB 8T 102	TS 101 C01	9756	Octal, Saddle, Ceramic	.61
E	TSB 8T 101	TS 101 P01	9753	Octal, Saddle, Mica-Filled	.40
E		TS 101 P02	9751-21	Octal Mica-Filled w tapped saddle	.44
E		TS 101 P02	9751-18	Octal Mica-Filled w/pem nut	.49
E		TS 101 C02	9751-20	Octal Ceramic w tapped saddle	.64
E		TS 101 C02	9751-36	Octal Ceramic w pem nut	.67.

EBY SOCKETS
STANDARD MINIATURE SOCKETS

Years of experience, intensive research and experimentation have been combined to produce a complete line of fine EBY miniature sockets of top electrical performance and rugged construction. These sockets, available in ceramic, mica-filled bakelite, and general purpose bakelite have met with enthusiastic response throughout the radio, television and electrical fields.

SHOCK SHIELD TYPE

Model	Description	Net Ea.
8322	Black Bakelite	$.17
8329	Mica-Filled Bakelite	.20
8328	Ceramic	.32
9061	Shield Base only	.07

SADDLE TYPE Top Mount

Model	Description	Net Ea.
8323	Black Bakelite	$.09
8327	Mica-Filled Bakelite	.11
8326	Ceramic	.26

SADDLE TYPE Bottom Mount

Model	Description	Net Ea.
8578	Black Bakelite	$.09
9064	Mica-Filled Bakelite	.11

SHOCK SHIELD TYPE

Model	Description	Net Ea.
9723	Black Bakelite	$.26
9714	Mica-Filled Bakelite	.29
9716	Ceramic	.55
9062	Shield Base only	.11

SADDLE TYPE Top Mount

Model	Description	Net Ea.
9001	Black Bakelite	$.12
9430	Mica-Filled Bakelite	.14
9735	Ceramic	.43

SADDLE TYPE Bottom Mount

Model	Description	Net Ea.
9012	Black Bakelite	$.11
9400	Mica-Filled Bakelite	.14
9713	Ceramic	.44

EBY
PRINTED CIRCUIT SOCKET

Model	Description	Net Each
PC-7	7 pin general purpose phenolic miniature socket for printed and etched circuit requirements. Rapid mounting with snap action contacts to secure socket.	.13
PC-9	Same as above but 9 pin socket.	.20

EBY
TURRET SOCKETS

TURRET SOCKETS, widely recognized for their usefulness in simplifying wiring and sub-assembly work. Space-saving and economical, lead lengths are reduced to a minimum thereby reducing capacitance. Available with 7 and 9 pin mica-filled miniature sockets. Spacer is brass, cadmium plated; terminals are brass, silver plated; base is phenolic.

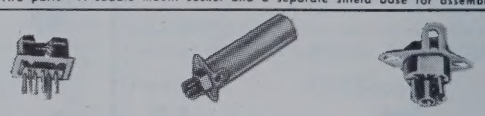
7-PIN

Model	Description	Net Each
9801	Saddle Mt., 1 1/8" shaft	$ .73
9802	Saddle Mt., 1 1/2" shaft	.73
*9805	Shield Mt., 1 1/8" shaft	.82
*9806	Shield Mt., 1 1/2" shaft	.82

9-PIN

Model	Description	Net Each
9809	Saddle Mt., 1 1/8" shaft	$ .88
9810	Saddle Mt., 1 1/2" shaft	.88
9813	Shield Mt., 1 1/8" shaft	.97
9814	Shield Mt., 1 1/2" shaft	.97

* Supplied in two parts—A saddle mount socket and a separate shield base for assembly on the job.



EBY
TRANSISTOR & SUB-MINIATURE SOCKET & SHIELD

Model	Description	Net Each
SM-3	Rectangular low loss phenolic casting. Contacts of phosphor bronze cadmium plated tin dipped to facilitate soldering. Supplied with mounting bracket.	$ .24
SM-5	Same as above but with 5 contacts	.20
SM-6	Same as above but with 6 contacts.	.22
SM-7	Same as above but with 7 contacts.	.24
SM-8	Round subminiature socket made of the same low loss phenolic as the rectangular sockets. Nickel plated saddle for mounting.	.38
SH-1	Brass nickel plated round metal shield for SM-8 socket.	.11

EBY TYPE 12 SOCKET

This socket has long been the choice of the experimental laboratories for top-of-panel or sub-panel mounting. The entire socket is molded in one piece of solid bakelite. The contacts are phosphor bronze, cadmium plated. All contact designations are molded on both top and bottom of the base. Mounting centers are 1-11/16".

Model	Description	Net Each
12-4	4 contacts	$ .29
12-5	5 contacts	.31
12-6	6 contacts	.32
12-7-N-0	7 lg. & sm. comb.	.34
12-8	8 contacts	.35

EBY SHIELDS
STEEL CADMIUM PLATED

For Use With Shock Shield Sockets

Model	Description	Net Each
5001	7 Pin 1 3/8" High	$ .13
5002	7 Pin 1 3/4" High	.13
5003	7 Pin 2 1/4" High	.19
5006	9 Pin 1 1/2" High	.14
5007	9 Pin 1-15/16" High	.15
5008	9 Pin 2 3/8" High	.17

For Saddle & Split-Saddle Sockets

Model	Description	Net Each
8757	7 Pin 2" High	$ .06
8758	Adapter for above	.03
8759	9 Pin 2" High	.09
8760	Adapter for above	.04

Adapters needed with saddle type sockets, not required with split-saddle sockets.

EBY
RTMA OCTAL SOCKETS

Octal Saddle Type No. 9067

Black bakelite, steel saddle, cadmium plated with 4 ground lugs. Mounting centers 1-5/16". Brass contacts, cadmium plated.

Net Each ..... $.14

EBY
DIODE HOLDER MODEL DH-1

Made of phosphor bronze and provides mounting assembly for most diodes. Clips are provided to hold diode and tinned lugs for soldering into the circuit.

Net Each ..... $.11

EBY
14-PIN RELAY SOCKET

Designed around the standard no val socket having the same excellent features found in the standard 7 and 9 pin miniature sockets, for use in mounting the new 14 point relays. Body is of mica-filled bakelite.

Model	Description	Net Ea.
9759	Top Mount	$ .56
9760	Bottom Mount	.56

AMPHENOL SOCKETS

For Every Electronic Application

Sun Radio carries a complete stock of these very popular electronic components. Call on us for all your requirements.

MOLDED-IN-PLATE SOCKETS

Famous AMPHENOL "Mips", molded of high strength black bakelite with sturdy steel mounting plate molded-in. Contacts grip tube prongs firmly—retain their resilience indefinitely.

AMPHENOL Number	Description
77-MIP-4	4 contact
77-MIP-5	5 contact
77-MIP-6	6 contact
77-MIP-7L	7 large
77-MIP-7S	7 small
77-MIP-8	8 octal
77-MIP-9	9 octal style
77-MIP-11	11 octal style
77-MIP-12	12 octal style
88-8	8 octal compact
88-8X	8 loktal compact
77-MIP-8FK	8 octal, with 11-3K floating socket kit
11-3K	Kit for converting any "Mip" to floating socket

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
77-M1P-4	.08	.07
77-M1P-5	.09	.075
77-M1P-6	.10	.09
77-M1P-7L	.12	.105
77-M1P-7S	.11	.095
77-M1P-8	.09	.075
77-M1P-9	.10	.09
77-M1P-11	.13	.11
77-M1P-12	.15	.125
77-M1P-4T	.10	.085
77-M1P-5T	.10	.09
77-M1P-6T	.13	.11
77-M1P-7LT	.15	.13
77-M1P-7ST	.13	.115
77-M1P-8T	.10	.09
77-M1P-9T	.13	.11
77-M1P-11T	.15	.13
77-M1P-12T	.17	.145

COMPACT MIP SOCKETS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
88-8	.09	.078
88-8T	.13	.115
88-8X	.14	.123
88-8XT	.15	.13

FLOATING OCTAL SOCKET

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
77-MIP-8F	.10	.09
77-MIP-8FK	.21	.18

ANTI-MICROPHONE SOCKET KIT

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
11-3K	.10	.09

ADAPTER SOCKETS

For miniature tubes; modernize tube checkers and analyzers!

AMPHENOL Number	Description
78-A7P	7 pin
78-A9P	9 pin

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
78-A7P	.21	.175
78-A9P	.27	.225

"S" TYPE REPLACEMENT SOCKETS

Convenient and versatile; assembled with retainer rings to chassis of sturdy mounting plate with slotted holes.

AMPHENOL Number With Mtg. Plt.	Black Bakelite Without	Description
78-RS4	78-S4	4 contact
78-RS5	78-S5	5 contact
78-RS6	78-S6	6 contact
78-RS7L	78-S7L	7 large
78-RS7S	78-S7S	7 small
78-RS8	78-S8	8 octal
78-RS8L	78-S8L	8 loktal
78-RS9	78-S9	9 octal
78-RS11	78-S11	11 octal
	Steatite	
49-RSS4	49-SS4	4 contact
49-RSS5	49-SS5	5 contact
49-RSS6	49-SS6	6 contact
49-RSS7L	49-SS7L	7 large
49-RSS7S	49-SS7S	7 small
49-RSS8	49-SS8	8 octal

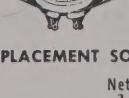
Cat. No.	Net Ea. 1-99	Net Ea. Per 100
78-S4	.08	.07
78-S5	.09	.078
78-S6	.10	.085
78-S7L	.14	.12
78-S7S	.10	.09
78-S8	.10	.085
78-S8L	.12	.105
78-S9	.11	.098
78-S11	.13	.110
78-S8T	.13	.110
78-S11T	.16	.14
78-B	.06	.055

REPLACEMENT SOCKETS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
78-RS4	.10	.085
78-RS5	.11	.095
78-RS6	.12	.10
78-RS7S	.12	.108
78-RS7L	.18	.155
78-RS8	.12	.10
78-RS8L	.16	.14
78-RS9	.13	.11
78-RS11	.16	.14
78-RS8T	.15	.13
78-RS11T	.19	.165

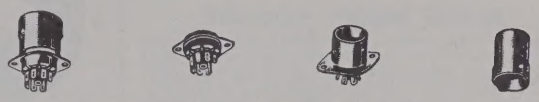
STEATITE "S" TYPE SOCKETS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
49-SS4	.25	.215
49-SS5	.27	.230
49-SS6	.28	.240
49-SS7L	.31	.265
49-SS7S	.31	.265
49-SS8	.26	.22
49-SS11L	.62	.52



STEATITE REPLACEMENT SOCKETS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
49-RSS4	.29	.245
49-RSS5	.31	.260
49-RSS6	.32	.27
49-RSS7L	.35	.295
49-RSS7S	.35	.295
49-RSS8	.30	.25



MINIATURE 7 & 9 PIN SOCKETS

For tv, fm and radio use—sockets available for any miniature application. All have .095" rivet holes unless marked.

AMPHENOL Number	Bottom Mounting—No Shield Base Description	Center Shield
59-409	9 contact, black bakelite	L
59-410	9 contact, mica-filled	L
147-500	7 contact, black bakelite	L
* 147-502	7 contact, black bakelite	L
147-504	7 contact, black bakelite	O
147-505	7 contact, mica-filled	S
AMPHENOL Number	**Top Mounting—Tube Shield Base Description**	**Center Shield**
† 59-403	9 contact, mica-filled	L
59-406	9 contact, black bakelite	L
59-407	9 contact, mica-filled	L
147-905	7 contact, black bakelite	L
147-913	7 contact, mica-filled	S
147-916	7 contact, mica-filled	S
147-921	7 contact, steatite	S
† 147-924	7 contact, steatite	S
† 147-925	7 contact, steatite	L

Rubber mounted †.125 dia. rivet holes.

7-PIN MINIATURE SOCKETS

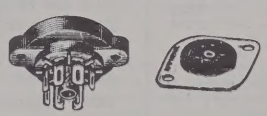
Cat. No.	Net Ea. 1-99	Net Ea. Per 100
147-500	.15	.125
147-501	.24	.205
147-502	.23	.195
147-504	.13	.115
147-505	.13	.125
147-905	.21	.18
147-913	.22	.188
147-916	.24	.20
147-921	.27	.225
147-924	.30	.25
147-925	.27	.225

MINIATURE 9-PIN SOCKETS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
59-403	.30	.25
59-406	.25	.21
59-407	.28	.24
59-409	.20	.17
59-410	.20	.17

TUBE SHIELDS

Cat. No.		Net Ea. 1-99	Net Ea. Per 100
5-401	For 7 pin—1⅜"	.07	.063
5-402	For 7 pin—1¾"	.07	.063
5-405	For 9 Pin—1½"	.09	.075
5-408	For 9 pin—1 13/16"	.10	.09
5-409	For 9 pin—2⅜"	.10	.09



ETHYLON "A" SOCKETS

Miniature 7 and 9 pin sockets, molded of AMPHENOL Ethylon-A with exceptionally high "Q" factor and low-loss properties.

AMPHENOL Number	Description
59-305	8 pin octal, Zip-in
59-307	7 pin miniature, Zip-in
59-309	9 pin miniature, Zip-in
59-355	8 pin octal, with mounting plate
59-357	7 pin miniature with mounting plate
59-359	9 pin miniature with mounting plate
59-367	7 pin miniature with tube shield base
59-369	9 pin miniature with tube shield base

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
59-305	.18	.15
59-307	.13	.11
59-309	.15	.125
59-355	.20	.170
59-357	.15	.125
59-359	.20	.17
59-367	.21	.18
59-369	.27	.225

SADDLE TYPE OCTAL SOCKETS

Economical below-chassis mounting sockets. Black bakelite.

AMPHENOL Number	Description
168-001	8 contact, wrap-around, 4 grounding lugs
168-015	8 contact, tuning-fork, 4 grounding lugs

SADDLE TYPE OCTAL SOCKETS

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
168-001	.07	.06
168-015	.07	.063

BARRIER TYPE SOCKETS

Long creepage paths, Patented Clover-Leaf contacts, melamine bodies—above or below chassis mountings; top quality throughout.

AMPHENOL Number	Description
146-103	Octal, top mounted
146-104	Octal, threaded inserts, top mounted
146-111	7 pin, miniature
146-203	146-103, bottom mounted
146-204	146-104, bottom mounted

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
146-103	.9	.83
146-104	1.2	1.08
146-111	1.4	1.18
146-203	.9	.83
146-204	1.2	1.08

STEATITE TRANSMITTING TUBE SOCKETS

Low-loss steatite, Clover Leaf contacts permanently secured mounting plate.

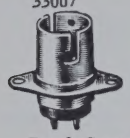
AMPHENOL Number	Description
148-101	Small and medium 4 pin
148-111	Octal

Cat. No.	Net Ea. 1-99	Net Ea. Per 100
148-101	.75	.63
148-111	.72	.60

JAMES MILLEN SOCKETS

These sockets are especially recommended where the utmost reliability and performance are required. Constructed of finest quality steatite which extends much higher above and below the metal plate than is generally customary, so as to provide a long flash over path to ground. Insulating barriers between contacts allow use of higher voltage. Mounting centers—1¾".

Cat. No.	Prongs	Net Ea.
33004	4	$ .36
33005	5	.36
33006	6	.36
33007	8	.36



JAMES MILLEN

Dual Contact Sockets for 991 Tubes

Cat. No.	Description	Net Ea.
33991	Black bakelite ins.	$ .51
33992	Mica filled ins.	.63

MILLEN

Crystal Mounting Sockets

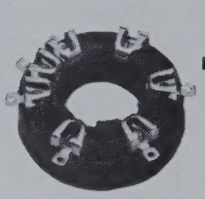
Cat. No.	Contact Spacing	Pin Dia.	Net Ea.
33002	.750"	.125"	$ .36
33102	.487"	.095"	.36
33202	.500"	.125"	.36
33302	.500"	.05"	.24

BIRNBACH TRANSMITTING TUBE SOCKETS

Accepted as standard. Widely used in industrial application. No. 435—10 Watt Socket, has heavy phosphor bronze, cadmium plated side wiping type contacts; white glazed porcelain base; heavy nickel plated brass shell. No. 434—50 watt socket, has heavy double filament phosphor bronze, cadmium plated spring contacts to carry heavy currents; polished nickel plated brass shell set in a white glazed porcelain base. All brass nickel plated screws and milled nuts used.

Nos. 434-435

Cat. No.	Watt Socket	A	B	D	E	Mtg. Holes	Pin	Tube Base	Net Ea.
434	50	2-9/32"	3¾"	2-13/16"	1.886"	2	4	Std. Jumbo	$1.38
435	10	1-7/8"	2½"	2-1/16"	1.386"	2	4	Med Bay	1.09

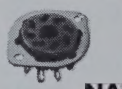


NATIONAL

Transmitting Tube Sockets

Precision engineering and construction go into every National socket, assuring you of superior performance and maximum service.

Cat. No.	Fig.	Prongs	Description	Size	Net Ea.
HX29	A	7	Low loss ceramic wafer for 823 and 832 tubes.	2⅝"x2⅜"	$ .92
XLA7	B	7	Acorn mica-filled low loss for 614 and 950 tubes.	1 11/32" Dia.	1.12
XM10	C	4	Heavy duty metal shell for 4-pin tubes.	2 5/32" Dia.	1.02
XM50	C	4	Heavy duty metal shell for jumbo 4-pin tubes.		1.35



NATIONAL

CIR Sockets

For VHF or UHF Use

Made of grade L5 ceramic conforming to Jan I10 specifications. Top and sides glazed for added durability. Mounting plates nickel-plated brass. Contacts silver-plated phosphor bronze, with solder-dipped tips. Mounting centers 1-27/32" except CIR-8 which has a 1½" mounting center.

Cat. No.	Prongs	Net Ea.
CIR4	4	$ .60
CIR5	5	.69
CIR6	6	.69
CIR8	8	.48

NATIONAL CS

Crystal Mounting Sockets

The National CS-5, CS-6, CS-7 and CS-8 are Crystal Mounting Sockets for crystal holders. Socket bases ceramic conforming to Jan I10 body glazed. Unglazed surface DC200 treated. All contacts phosphor bronze silver-plated except CS-7 which are beryllium copper silver-plated.

Cat No.	Contact Spacing	Pin Dia.	Net Ea.
CS5	.500"	.125"	$ .36
CS6	.486"	.095"	.36
CS7	.486"	.050"	.36
CS8	.750"	.125"	.36

CINCH CRYSTAL SOCKETS

2 PRONG

31/64" Centers

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Silver plated beryllium copper contacts on 31/64" centers. .120" diameter recessed mounting hole. Socket body is 25/32" long, 5/16" thick, and 35/64" high. For use with FT243 type crystal.

No.	Description	Net Each
2KB	Black	$ .23
2KM	Mica-Filled	.25

4 PRONG

Molded from mica-filled low loss bakelite. Silver plated beryllium copper contacts on 31/64" centers. .140 diameter mounting hole recessed 9/64" from surface in 5/16" diameter hole. Socket body is 25/32" long, 45/64" wide, and ½" high. Designed for use with two No. FT243 type crystals.

No.	Net Each
2K4	$ .30

2 PRONG

½" Centers

Molded from high dielectric black bakelite. Silver plated phosphor bronze contacts on ½" centers. No. 4-40 tap mounting hole. 1⅛" long, ⅜" wide, and 7/16" high. For No. CR-1 and SR5 type crystals.

No. 2KB1 Net Each $ .30

Made of ceramic material. Silver plated beryllium copper contacts with hot tinned tails, mounted on .486" centers. ⅛" mounting hole, ⅞" long, ⅜" wide and 5/16" high overall. Similar to above except the tails extend straight down. For No. CR-7 and BH-6 crystals.

No. 2K2C Net Each $ .22

EBY

HIGH VOLTAGE SOCKET

		Net Ea.
021-HV	Octal socket for use in high voltage circuit with 1B3 tube. Laminated bakelite with steel yoke that holds spring steel corona ring	.28
029-HV	Same as the 021-HV except for 1X2 type of rectifier.	.29

EBY

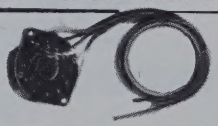
HIGH VOLTAGE SOCKET & SHIELD

		Net Ea.
8290	Socket with beryllium copper contacts. Conforms to Jan S28 specifications except rated at 2000 volts D.C. between contacts and threaded insert at 40,000 feet above sea level. Socket and shield in low loss bakelite.	$4.70
8291	Shield, 1 9/32" high.	2.94
8292	Shield 1 31/32" high.	2.94

EBY

DI-HEPTAL

Model	Description	Net Each
9058	Is specifically designed for mounting cathode ray tubes used in instrument work, oscilloscopes, etc. Compact rugged design offering years of fine service. Excellent for test application. Low Loss.	$ .92
9024	Same as 9058 in black bakelite	.76



EBY

LAMINATED DUO-DECAL

		Net Ea.
49-12DD	Laminated Duo-Decal Television Socket with plastic cover for complete insulation. Pins No. 1, 2, 10, 11, and 12 wired for quick installation. For use with standard Cathode Ray tubes. 18" Leads.	.41
49-13DD	Same as above wired for electro-static as well as magnetic tubes.	.47

EBY

DUODECAL SOCKET

		Net Ea.
9709-6	Black Bakelite 14 pin cathode-ray tube socket for use with 3BP1, 5CP1, 7JP4, and similar cathode-ray tubes. Complete with contacts and back plate for insulation. Wires may be soldered to contact before insertion for easy rapid handling. Socket may be inserted or withdrawn easily because of the free, smooth gripping action of specially designed contacts. Top diameter 2-7/32". Overall depth 47/64".	.58
9709-7	Same as 9709-6 but mica-filled bakelite.	.70

AMPHENOL

BRACKET TYPE SOCKETS

For upright panel mounting. Available in combinations as follows:

AMPHENOL Number	With Retaining Clip	With Terminal Block	With Bottom Cover	With Underwriters' Shield	For Super Jumbo 4-pin Tubes	For UX4-pin Tubes
146-105	X		X		X	
146-106	X				X	
146-107	X	X	X		X	
146-109				X		X
146-110						X

Cat. No.	Net Ea.	Net Ea. Per 50
146-105	2.70	2.25
146-106	2.28	1.90
146-107	5.46	4.55
146-109	2.40	2.00
146-110	2.40	2.00

5735-300-5485

JOHNSON BAYONET SOCKETS

Standard (designated -1) A commercial grade socket suitable for general requirements. Porcelain bases, glazed top and sides—phosphor bronze contacts, cadmium plated .0002. Nickel plated hardware. Bayonet shells are etched aluminum.

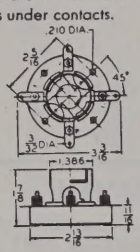
Industrial (designated -100) Superior in quality to Standard types, Industrial types have glazed steatite bases, DC200 treated. Phosphor bronze or beryllium copper contacts, .0005 silver plated. Aluminum bayonet shells, iridite No. 14 treated. Fungus resistant cushion washers under contacts.

Military (designated -200) Top quality for military requirements. Glazed L4 steatite bases, DC200 treated. Beryllium copper contacts .0005 silver plated. Hot tin-dipped terminals—brass bayonet shells, .0003 nickel plated. Threaded hardware .0002 nickel plated, unthreaded hardware .0003. Fungus resistant cushion washers under contacts.

HEAVY DUTY MEDIUM 4 PIN BAYONET

A rugged bayonet socket for medium 4 pin bayonet based tubes such as the 866A or 811A with RETMA Base No. A4-10.

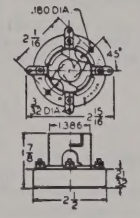
Cat. No.	Type	Net Price
123-209-1	Standard	$1.15
123-209-100	Industrial	2.80
123-209-200	Military	3.25



MEDIUM 4 PIN BAYONET

A compact, economical socket for medium 4 pin bayonet based tubes (RETMA Base No. A4-10).

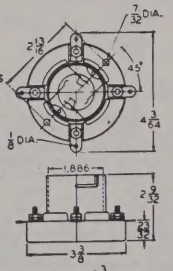
Cat. No.	Type	Net Price
123-210-1	Standard	$1.10
123-210-100	Industrial	1.40
123-210-200	Military	1.80



JUMBO 4 PIN BAYONET

A popular "50 watt" socket for medium power bayonet based tubes such as the 872A, 211 and others with RETMA Base No. A4-29

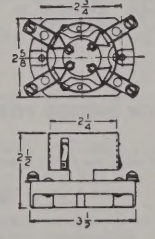
Cat. No.	Type	Net Price
123-211-1	Standard	$1.40
123-211-100	Industrial	2.90
123-211-200	Military	3.25



SUPER JUMBO 4 PIN SOCKET

A heavy duty industrial type socket designed for high voltages and/or heavy current. Accommodates tubes such as the 8008, 5C22, FG104, GL146, and others with RETMA Base No. A4-18.

Cat. No.	Type	Net Price
123-206-1	Standard or Industrial	$2.25
123-206-200	Military	2.55



JOHNSON SOCKETS

SOCKET FOR 5D21, 705A AND 715A & B

Designed for Western Electric tubes 5D21, 705A and 715A & B. Heavy, top and sides glazed, grade L4 steatite base and special locking device for retaining tube in socket. Contacts .0003 silver plated on Standard, .001 on Military. Long post single lock .0003 nickel plated on both types.

Cat. No.	Type	Net Price
122-234-1	Standard or Industrial	$2.00
122-234-200	Military	2.40

SOCKET FOR EIMAC 152TL AND 304TL

Base is glazed porcelain—contacts, nickel plated. Standard has .0001 nickel plating, Military has .0005 silver. Note: Not subject to military inspection due to porcelain base.

Cat. No.	Type	Net Price
124-213-1	Standard or Industrial	$1.45
124-213-200	Military	1.72

250 WATT SOCKET

A two unit socket for "250 watt" tubes such as the 204A and 849. Anode cap RETMA Nos. C1-8, C1-9, and C1-10, cathode mounting RETMA Base Nos. A3-20, A3-21, A3-23. Bases are of glazed porcelain—contacts are phosphor bronze, nickel plated.

Cat. No.	Net Price
124-215	$4.10

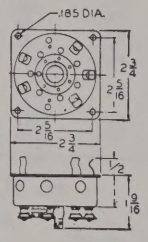
JOHNSON WAFER SOCKETS

Standard (designated -1) A commercial grade socket suitable for general requirements. Glazed steatite base is DC-200 treated—contacts are of plated brass with steel springs. Etched aluminum shields on shielded types.

Industrial (designated -100) Superior in quality to Standard types, Industrial types have glazed steatite bases, DC-200 treated. Contacts are phosphor bronze with beryllium copper springs .0005 silver plated. Shields on shield types are iridite No. 14 treated aluminum. Fungus resistant cushion washers under contacts.

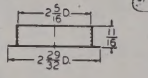
Military (designated -200) Top quality for all military requirements. Glazed steatite bases, DC-200 impregnated. Phosphor bronze contacts and beryllium copper springs silver plated .001—hot tin-dipped solder terminals. Fungus resistant glass base melamine cushion washers iridite No. 14 treated aluminum shields on shielded types. Entire socket protected for 200 hour salt spray test.

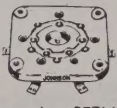
VHF SEPTAR SOCKETS



A 7 pin wafer socket designed for tubes with medium molded flare Septar base, RETMA Base No. E7-2. Equipped with a ventilated shield, five tube retainer springs. Provision for mounting button mica capacitors directly to socket. Designed for VHF use with tubes such as the 826, 832, 4D32, 4D22, PL6549, and PL6569, etc. Special terminals permit direct mounting of grid coils. Two holes provided for mounting of bus bar neutralizing leads. Standard model has silver plated phosphor bronze contacts for maximum VHF efficiency.

Cat. No.	Type	Net Price
122-101-1	Standard	$2.00
122-101-100	Industrial	2.20
122-101-200	Military	2.40

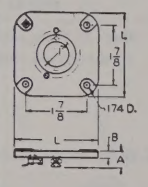




SEPTAR SOCKETS

Sockets 122-247 and 122-248 are designed for 7 pin tubes, RETMA Base No. E7-2. Each socket is furnished with a separate aluminum shield ring.

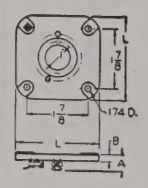
Cat. No.	Type	A	B	L	Net Price
122-247-1	Standard	17/32"	1/4"	2 5/8"	$0.90
122-247-100	Industrial	17/32"	1/4"	2 5/8"	1.07
122-247-200	Military	17/32"	1/4"	2 5/8"	1.24
122-248-1	Standard	17/32"	1/4"	2 3/8"	1.10
122-248-100	Industrial	17/32"	1/4"	2 3/8"	1.25
122-248-200	Military	17/32"	1/4"	2 3/8"	1.40



SUPER JUMBO 4 PIN SOCKETS

A heavy duty, steatite insulated, 4 pin wafer. Accommodates super jumbo base tubes such as the 8008 and many rectifier and thyratron types, RETMA Base No. A4-15, 16, and 18. Long, parallel contacts are designed to withstand high current.

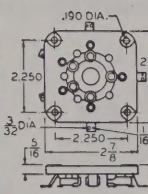
Cat. No.	Type	A	B	L	Net Price
122-244-1	Standard	11/16"	9/32"	2 5/8"	$1.35
122-244-100	Industrial	11/16"	9/32"	2 3/8"	1.45
122-244-200	Military*	11/16"	9/32"	2 3/8"	1.65



GIANT 7 PIN SOCKET

A rugged wafer socket for tubes with a Giant 7 pin base, RETMA Base No. A7-17 such as the 4E27, HK257 and 813. Contacts are designed with maximum surface area against tube prongs. Ventilating hole in base 3/4" diameter provides tube seal cooling.

Cat. No.	Type	A	B	L	Net Price
122-237-1	Standard	9/16"	1/4"	2 5/8"	$0.72
122-237-100	Industrial	9/16"	1/4"	2 5/8"	.84
122-237-200	Military	9/16"	1/4"	2 5/8"	1.01



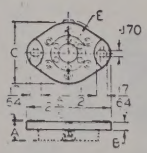
GIANT 5 PIN SOCKET

A large steatite wafer socket for tubes with a Giant 5 pin base, RETMA Base No. A5-19, such as the 4-125A, 4-250A, and RK-48. Tube seal ventilation is provided by one central and five ventilating holes located between contacts. Contacts are designed to withstand heavy current.

Cat. No.	Type	Net Price
122-275-1	Standard	$1.31
122-275-100	Industrial	1.56
122-275-200	Military	1.92

STANDARD WAFER SOCKETS

Steatite sockets for receiving and low power transmitting tubes.



Cat. No.	Type	A	B	C	E	For Tube	Net Price
122-224-1	Standard	9/16"	1/4"	1 11/16"	7/8"	4 Pin	$0.39
122-224-100	Industrial	9/16"	1/4"	1 11/16"	7/8"	4 Pin	.47
122-224-200	Military	9/16"	1/4"	1 11/16"	7/8"	4 Pin	.57
122-225-1	Standard	9/16"	1/4"	1 11/16"	59/64"	5 Pin	.42
122-225-100	Industrial	9/16"	1/4"	1 11/16"	59/64"	5 Pin	.52
122-225-200	Military	9/16"	1/4"	1 11/16"	59/64"	5 Pin	.60
122-226-1	Standard	9/16"	1/4"	1 11/16"	59/64"	6 Pin	.46
122-226-100	Industrial	9/16"	1/4"	1 11/16"	59/64"	6 Pin	.57
122-226-200	Military	9/16"	1/4"	1 11/16"	59/64"	6 Pin	.72
122-227-1	Standard	9/16"	1/4"	1 13/16"	31/32"	7 Pin	.49
122-227-100	Industrial	9/16"	1/4"	1 13/16"	31/32"	7 Pin	.64
122-227-200	Military	9/16"	1/4"	1 13/16"	31/32"	7 Pin	.81
122-228-1	Standard	15/32"	5/16"	1 11/16"	57/64"	Octal	.52
122-228-100	Industrial	15/32"	5/16"	1 11/16"	57/64"	Octal	.70
122-228-200	Military	15/32"	5/16"	1 11/16"	57/64"	Octal	.89

JOHNSON SOCKETS
SOCKET FOR 833 AND 833A

A special socket assembly for the 833 and 833A consisting of a steatite base which supports the tube and a pair of 119-843 tube cap connectors. Kurnled thumb nuts permit easy tube installation. Base is designed to minimize strain on the tube envelope and prevent breakage. Heat radiating aluminum plate terminals have 4 3/8" flexible laminated leads.

Cat. No.	Net Price
124-212	$6.55

Heat radiating plate connector only as used on 124-212 above.

Cat. No.	Net Price
119-843	$1.05

EBY

Insulated Binding Posts (With Non-Removable Tops)

Precision-made for low resistance. Positive electrical connections. Widely used for instruments, communication apparatus and electronic equipment. Metal inserts plain brass.

Cat. No.	Fig.	Knob Dimensions Dia. H.	Base Dimensions Dia. Thick.	Stem Size	Drilled Neck Dia.	Width of Contact Flanges	Net Ea.
30	A	½"x²⁄₁₆"	½"x¼"	6-32x½"	³⁄₁₆"	³⁄₈"	$ .21
37	A	½"x²⁄₁₆"	½"x¼"	6-32x⁵⁄₁₆"	³⁄₁₆"	³⁄₈"	.24
38	B	½"x²⁄₁₆"	¹⁷⁄₃₂"x¼"	6-32x⁵⁄₁₆"	³⁄₁₆"	³⁄₈"	.27
39	C	½"x²⁄₁₆"	½"x¼"	6-32x⁵⁄₁₆"	³⁄₁₆"	³⁄₈"	.27
40	A	⁹⁄₁₆"x½"	⁵⁄₈"x¼"	8-32x⁷⁄₁₆"	¹³⁄₆₄"	⁷⁄₁₆"	.33
41	B	⁹⁄₁₆"x½"	⁵⁄₈"x¼"	8-32x⁵⁄₈"	¹³⁄₆₄"	⁷⁄₁₆"	.36
42	C	⁹⁄₁₆"x½"	⁵⁄₈"x¼"	8-32x³⁄₄"	¹³⁄₆₄"	⁷⁄₁₆"	.36
43	A	⁵⁄₈"x¹⁷⁄₃₂"	²³⁄₃₂"x¼"	8-32x³⁄₄"	¹³⁄₆₄"	⁷⁄₁₆"	.42
44	B	⁵⁄₈"x¹⁷⁄₃₂"	²³⁄₃₂"x¼"	8-32x⁵⁄₁₆"	¹³⁄₆₄"	⁷⁄₁₆"	.36
45	C	⁵⁄₈"x¹⁷⁄₃₂"	²³⁄₃₂"x¼"	8-32x¾" or 10-32x¾"	¹³⁄₆₄"	⁷⁄₁₆"	.36
46	B	1¼"x1⁹⁄₃₂"	²³⁄₃₂"x¼"	8-32x⁵⁄₈"	1³⁄₆₄"	⁷⁄₁₆"	.45
47	C	1¼"x1⁹⁄₃₂"	²³⁄₃₂"x¼"	8-32x¾"	1³⁄₆₄"	½"	.45

A

B

C

D

E

F

EBY Twin and Triple Posts
Center distance between posts is ⅞"

Cat. No.	Fig.	Base Dimensions L.	W.	Th.	Description	Net Ea.
21R	D	2"	x 1¹⁄₁₆"	x ³⁄₁₆"	Both posts completely insulated	$ .51
21S	E	2"	x 1¼"	x ³⁄₁₆"	1 post insulated, 1 post grounded	.54
21T	F	2⅜"	x 1¼"	x ³⁄₁₆	2 posts insulated, 1 post grounded	.90

NATIONAL

Building Post

FWA
The National FWA is the well-known binding post used with several popular National terminals. The post is constructed of solid nickel-plated brass.

$ .23 Net Ea.

Jack

FWE
The National FWE Jack is of solid brass, with a tough, durable coat of nickel plate; the lug is constructed of hot-tin-dipped brass; and the hex nut of nickel-plated brass as well.

$ .17 Net Ea.

Insulator

FWC
Moulded of heavy-duty mica-filled bakelite and designed for indefinite service under the most gruelling operating conditions, the FWC Insulator is an important component of several National terminals.

$ .28 Net Per Pair

Terminal Assembly

FWH
The insulators of this popular National terminal assembly are moulded of Mica filled bakelite. The binding posts are designed to take banana plugs at the top and grip wires at the bottom.

$ .76 Net Ea.

Terminal Assembly

FWJ
This terminal assembly uses the same insulators as the FWH (shown directly above), but has jacks.

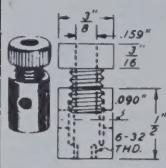
$ .62 Net Ea.

Bakelite Plug

FWT
This moulded Mica Filled bakelite plug has two banana plugs on 3/4-inch centers, and is designed to fit the National FWH and FWJ terminals

$1.14 Net Ea.

H. H. SMITH



METAL COMBINATION BINDING POST

This two piece brass nickel plated all metal binding post accepts all standard phone tip or banana plugs. Mounts to chassis by use of 6-32 screw.

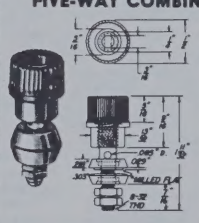
No. 136 **$ .15 Net Ea.**

METAL BINDING POST

Made of brass, heavily nickel plated overall. Supplied complete with screw and lockwasher.

No. 110 **$ .21 Net Ea.**

FIVE-WAY COMBINATION BINDING POST

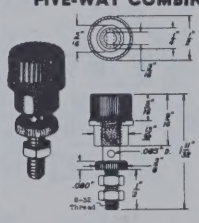


All Insulated Type

Molded plastic free turning non-removable head. Molded in brass bushings in washers completely insulate this post from the panel. Mounts in 5/16" panel with milled slot for locking. This varied purpose post will accept for checking purposes a phone tip plug, a spade lug, a banana plug, an alligator clip or a strand of wire. Available in Red or Black. Specify color.

No. 260 **$ .33 Net Ea.**

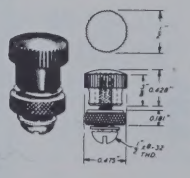
FIVE-WAY COMBINATION BINDING POST



Molded plastic free turning non-removable head. This varied purpose post will accept for checking purposes a phone tip plug, a spade lug, or a banana plug. Can be completely insulated from panel by the use of our No. 2155 Fibre shoulder washer, and No. 2163 flat fibre washer. The body is brass, nickel plated. Available in Red or Black. Specify color.

No. 220 **$ .24 Net Ea.**

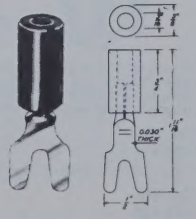
BINDING POST



Molded-in brass insert in molded bakelite head supplied only in black. Brass, nickel plated retaining washer. Supplied complete with 8/32" x ½" screw and lockwasher.

No. 265 **$ .15 Net Ea.**

INSULATED SPADE LUG



Molded plastic handle ¾" long enables insertion of banana plug into rear of lug so that a banana plug can be adapted to a spade lug. Steel hot tinned lug .030 thick for extra durability. Insulated handle available in Red or Black. Specify Color.

No. 218 **$ .11 Net Ea.**
No. 129 Lug only **$1.20 Net Per 100**

SUPERIOR

5-Way Binding Posts

This versatile binding post offers 5 different methods of connection. Permanent clamping, spade lug, clip-lead, banana plug or looping and clamping. Ruggedly built of the finest materials, it provides complete insulation. Has a current capacity of 30 amperes and a working voltage of 1000 volts. Available in red and black.

Cat. No.	Description	Net Ea.
DF30BC	Black with Brass Stem	$ .40
DF30RC	Red with Brass Stem	.40
DFN30RC	Black with Nickel Plated Brass Stem	.45
DFN30BC	Red with Nickel Plated Brass Stem	.45

MILLEN

SAFETY TERMINAL

Combination high voltage terminal and thru-bushing Tapered contact pin fits firmly into conical socket providing large area, low resistance connection. Pin is swivel mounted in cap to prevent twisting of lead wire.

	Net Ea.
No. 37001, Black or Red	$ .45 Black, .48 Red
No. 37501, Low loss	.63

MILLEN

POSTS, PLATES and PLUGS

Designed for Application! Compact, easy to use. Made in black and red regular bakelite as well as low loss brown mica filled bakelite or steatite for R.F. uses. Posts have captive head.

	Net Ea.
No. 37202 Plates (pr.)	$ .33 Black, .36 Brown Or Red
No. 37212 Plugs	.78
No. 37222 Posts (pr.)	.45

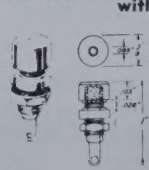
SMITH

NYLON INSULATED TIP JACK

This molded all nylon insulated phone tip jack accommodates all standard phone tips. Sturdy phosphor bronze contact. Mounts in ⅜" hole in panels up to 5/16" thick. Available in red, black, yellow or green. Specify color.

No. 240 Net Ea. $0.18

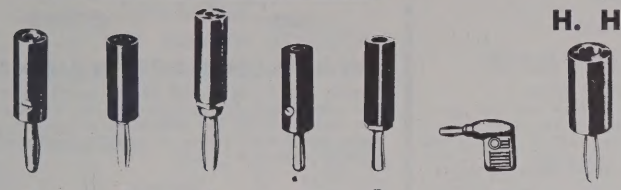
NYLON INSULATED PHONE TIP JACK with Nylon Insulated Washer



Non-removable molded nylon head with molded nylon washer. Extruded portion of nylon head and washer provides excellent insulation from panel. Accommodates all standard phone tip plugs. Body is brass nickel plated. Sturdy phosphor bronze spring. Mounts in 5/16" hole in panels up to ¼" thick. Red, black, yellow or green. Specify color.

No. 241 Net Ea. $0.18

H. H. SMITH



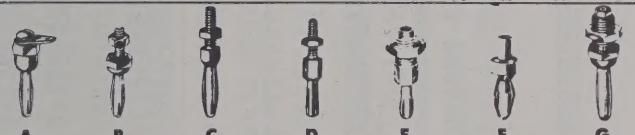
INSULATED BANANA PLUGS

Cat. No.	Fig.	Type	Handle Size L. x Dia.	Overall Length	Net Ea.
204	A	Solderless Spring Type	1" x 3/8"	1 1/16"	$ .15
211	B	Solder Spring Type	1" x 3/8"	1 3/4"	.15
212	C	Solder Spring Type			.15
242	C	Same as 212 with Beryllium Copper Spring			.30
213	D	Solderless Split Type	1" x 3/8"	1 9/16"	.12
253	E	Solder Split Type			.15
255	F	Meter Tip Spring Type			.36
243	D	Solderless Split Type	1 1/2" x 3/4"	2 1/16"	.24
244	A	Solderless Spring Type	1 1/2" x 3/8"	2 3/16"	.24
233	G	Heavy Duty Solderless Split Type	1" x 1/2"	1 5/8"	.45
234	G	Heavy Duty Solderless Spring Type	1" x 1/2"	1 5/8"	.45

INSULATED BANANA JACKS

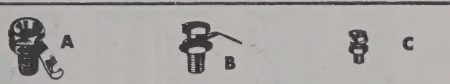
All supplied complete with washers, lugs and nuts.

Cat. No.	Fig.	Type	Mtg. Hole	Head Size Dia. x Hgt.	Overall Length	Net Ea.
205	A	Standard, Molded Plastic	5/16"	7/16" x 15/64"	21/32"	$ .12
219	B	Recessed Jack Body Type	5/16"	1/2" x 1/4"	23/32"	.13
221	C	Midget Type	5/16"	3/8" x 7/32"	53/64"	.18



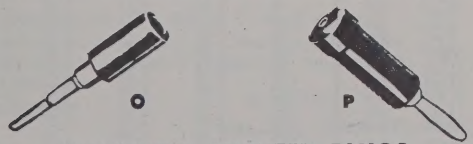
UNINSULATED BANANA PLUGS

Cat. No.	Fig.	Type	Overall Length	Net Ea.
100	A	Spring Type with Screw Connection	1 1/32"	$ .12
102	B	Srping Type with 6/32 Threaded Stud, Panel Mounting	1 1/4"	.12
103	C	Spring Type with 6/32 Threaded Stud, Panel Mounting	1 3/8"	.12
104	D	Split Type with 6/32 Threaded Stud, Panel Mounting	1 1/4"	.12
111	E	Midget Split Type with 10/32 Threaded Stud	29/32"	.09
121	F	Midget Spring Type with Rivet Head	25/32"	.15
145	G	Spring Type with 1/4-32 Threaded Stud and 6/32" Brass Stud	1 5/16"	.15
135	G	Same as 145 but with Beryllium Copper Springs	1 5/16"	.27



UNINSULATED BANANA JACKS

Cat. No.	Fig.	Type	Mtg. Hole	Head Size Dia. x Hgt.	Overall Length	Net Ea.
101	A	Recessed Head Type	1/4"	3/8" x 3/32"	1/2"	$ .09
109	B	Standard Type	1/4"	5/16" x 1/2"	5/8"	.09
112	C	Midget, Use with Cat. No. 111 Plug	10/32"	3/16" x 1/16"	3/8"	.07

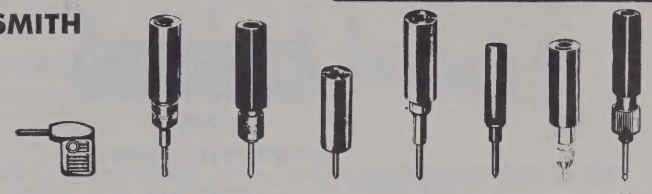


INSULATED ADAPTER PLUGS

Cat. No.	Fig.	Type	Handle Size L. x Dia.	Overall Length	Net Ea.
215	O	Phone Tip Type Accommodates Banana Plug in Rear	3/4" x 3/8"	1 7/8"	.15
214	P	Banana Spring Type Accommodates Phone Tip Plug in Rear	1 1/16" x 7/16"	1 13/16"	.27

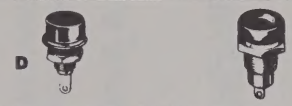
INSULATED COMBINATION BANANA & PHONE TIP JACK

Cat. No.	Fig.	Type	Mtg. Hole	Head Size Dia. x Hgt.	Overall Length	Net Ea.
206	F	Standard Molded Plastic		3/8" x 7/32"	1 1/32"	$ .15



INSULATED PHONE TIP PLUGS

Cat. No.	Fig.	Type	Handle Size L. x Dia.	Overall Length	Net Ea.
235	F	Meter Tip Type			$ .27
200	H	Senior Solderless Type	1" x 3/4"	2 1/4"	.14
201	I	Junior Solderless Type	1" x 3/8"	2"	.14
203	J	Short Solder Type			.12
229	K	Heavy Duty Solder Type	1" x 3/8"	2 1/8"	.17
270	L	Sub-Miniature Solder Type	1" x 1/4"	1 13/32"	.12
216	M	Phono Needle Tip Solder Type	1" x 3/8"	2"	.15
250	N	JAN Approved Solderless Type	1" x 3/8"	2 1/8"	.54

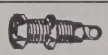


INSULATED PHONE TIP JACKS

Cat. No.	Fig.	Type	Mtg. Hole	Head Size Dia. x Hgt.	Overall Length	Net Ea.
202	D	Standard Molded Plastic	5/16"	7/16" x 15/64"	1 1/64"	$ .12
223	D	Standard Machined Plastic	5/16"	1/2" x 15/64"	1 1/64"	.21
240	E	All Insulated	3/8"	1/2" x 1/8"	1"	.30

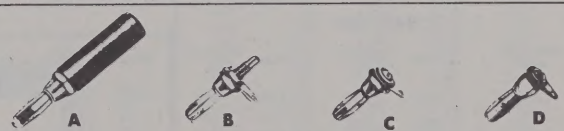
UNINSULATED PHONE TIPS

Cat. No.	Fig.	Type	Overall Length	Net Ea.
108	A	Standard Phone Tip, I.D. 1/8"	1"	$ .02
123	A	Large I.D. Standard Phone Tip, I.D. 0.149	1"	.03
155	A	Heavy Duty, I.D. 0.169	1 9/16"	.06
125	F	Heavy Duty with 1/4-32 Threaded Stud	1 13/32"	.10
105	B	Solderless Senior, Force Fit Type	1 15/32"	.10
106	C	Solderless Junior, Force Fit Type	1 3/16"	.10
124	D	Solderless Senior with 1/4-32 Threaded Stud	1 15/32"	.11
127	E	Solderless Junior with 1/4-32 Threaded Stud	1 1/4"	.11



UNINSULATED TIP JACK

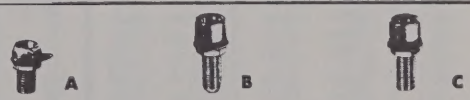
Cat. No.	Fig.	Type	Mtg. Hole	Head Size Dia. x Hgt.	Overall Length	Net Ea.
107	D	Standard Type	1/4"	5/16" x 3/32"	15/16"	$ .09



GIANT BANANA PLUGS

ALL PHOSPHOR BRONZE SPRING TYPE

Cat. No.	Fig.	Type	Overall Length	Net Ea.
285	A	Insulated with Red or Black 1 3/4" L. x 5/8" W. Handle	2 7/8"	$ .45
185	B	Uninsulated with 10/32 Threaded Stud	1 3/4"	.27
186	C	Uninsulated with 10/32 x 7/8" Internal Screw	1 3/16"	.27
188	D	Uninsulated with 10/32 x 7/8" Internal Screw	1 1/8"	.27



GIANT BANANA JACKS

Cat. No.	Fig.	Type	Mtg. Hole	Head Size Dia. x Hgt.	Overall Length	Net Ea.
187	A	Uninsulated, Hexed Head	3/8"	1/2" x 3/16"	7/8"	$ .27
286	B	Insulated Red or Black, Lug at End	1/2"	5/8" x 3/8"	1 3/8"	.39
287	C	Insulated Red or Black, Lug Under Head	1/2"	5/8" x 3/8"	1 3/8"	.39

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

OHMITE

"BROWN DEVIL" RESISTORS

High quality, small size wire-wound resistors with a long record of continuous trouble-free service. All units supplied with 1½" tinned leads and welded terminals.

5-Watt Core Size: 1" x 5/16"
10-Watt Core Size: 1¾" x 5/16"
20-Watt Core Size: 2" x 7/16"

Resistance in ohms	5-Watt Net Ea.	10-Watt Net Ea.	20-Watt Net Ea.
0.4		$ .44	$ .56
0.6			.56
0.8			.56
1	$ .39	.44	
1.2		.44	
1.3		.44	
1.5	.39	.44	
2	.39	.44	
3	.39	.44	
4	.39	.44	
5	.39	.44	.56
7.5	.39	.44	
10	.39	.44	.56
12	.39	.44	
15	.39	.44	
20	.39	.44	
25	.39	.44	.56
30	.39	.44	
35	.39	.44	
40	.39	.44	
50	.39	.44	.56
75	.39	.44	.56
125	.39	.44	
150	.39	.44	.56
200	.39	.44	.56
225	.39	.44	
250	.39	.44	.56
300	.39	.44	.56
350	.39	.44	.56
400	.39	.44	.56
450	.39	.44	
500	.39	.44	.56
600	.39	.44	
650			.56
700	.39	.44	
750	.39	.44	
800	.39	.44	.56
850			.56
900	.39	.44	.56
1,000	.39	.44	.56
1,100	.42	.47	
1,200	.42	.47	.57
1,250	.42	.47	.57
1,500	.42	.47	.57
1,750	.42	.47	.57
1,850			
2,000	$ .42	$ .47	.57
2,250	.42	.47	.57
2,400			.57
2,500	.42	.47	.57
2,750			.57
3,000	.42	.47	.57
3,500	.42	.47	.57
4,000	.42	.47	.57
4,500	.42	.47	.57
5,000	.42	.47	.57
6,000	.46	.54	.66
7,000	.46	.54	.66
7,500	.46	.54	.66
8,000	.46	.54	.66
8,500		.54	
9,000	.46		
10,000	.46	.54	.66
11,000		.61	
12,000		.61	
12,500		.61	.70
13,500		.61	
14,300		.61	
15,000		.61	.70
16,000		.61	
17,500		.61	
18,000		.61	
20,000		.61	.70
22,500		.64	
25,000		.64	.80
30,000		.71	.80
35,000		.71	.80
40,000		.71	.80
45,000		.71	.93
50,000		.71	.93
55,000			.93
60,000			.93
65,000			1.08
70,000			1.08
75,000			1.08
80,000			1.25
90,000			1.25
95,000			1.25
100,000			1.25

OHMITE

AXIAL LEAD RESISTORS

5 and 10 Watt Sizes

A new series of small size vitreous enameled resistors built to the usual Ohmite high quality. Standard tolerance is ±5%—50 Ohms and higher. Below 50 Ohms tolerance is ±10%. Leads are 1½" tinned.

5-watt Core Size: 1" x 11/32"
10-watt Core Size: 1¾" x 13/32"

5 WATT SIZE

Ohms	Maximum Amps.	Ohms	Maximum Amps	Ohms	Maximum Amps.
1.0	2.236	150	.182	1,750	.053
1.5	1.82	200	.158	2,000	.049
2.0	1.58	225	.149	2,250	.046
3.0	1.29	250	.141	2,500	.044
4.0	1.12	300	.129	3,000	.039
5.0	1.000	350	.120	3,500	.036
7.5	.818	400	.112	4,000	.033
10	.700	450	.105	4,500	.031
12	.645	500	.100	5,000	.029
15	.575	600	.091	6,000	.026
20	.500	700	.084	7,000	.024
25	.447	750	.081	7,500	.022
30	.408	800	.079	8,000	.021
35	.378	900	.074	9,000	.019
40	.353	1,000	.070	10,000	.018
50	.316	1,100	.067	12,500	.015
75	.258	1,200	.064	15,000	.013
100	.224	1,250	.063	17,500	.012
125	.200	1,500	.057		

1 to 1,000 ohms	Net Ea.	$0.47
1,100 to 5,000 ohms	Net Ea.	.51
6,000 to 10,000 ohms	Net Ea.	.55
11,000 to 17,500 ohms	Net Ea.	.63

10 WATT SIZE

Ohms	Maximum Amps.	Ohms	Maximum Amps	Ohms	Maximum Amps
0.4	5.000	250	.200	6,000	.038
1.0	3.160	300	.182	7,000	.034
1.2	2.820	350	.169	7,500	.032
1.3	2.740	400	.158	8,000	.031
1.5	2.580	450	.149	8,500	.029
2.0	2.235	500	.141	9,000	.028
3.0	1.825	600	.129	10,000	.026
4.0	1.580	700	.119	11,000	.024
5.0	1.414	750	.115	12,000	.023
7.5	1.155	800	.111	12,500	.022
10	1.000	900	.105	13,500	.021
12	.910	1,000	.100	15,000	.019
15	.816	1,100	.095	16,000	.018
20	.707	1,200	.091	17,500	.017
25	.632	1,250	.089	18,000	.017
30	.575	1,500	.079	20,000	.016
35	.535	1,750	.074	22,500	.015
40	.500	2,000	.069	25,000	.014
50	.447	2,250	.064	30,000	.012
75	.365	2,500	.063	35,000	.010
100	.316	3,000	.056	40,000	.009
125	.283	3,500	.051	45,000	.008
150	.258	4,000	.047	50,000	.007
200	.223	4,500	.045		
225	.217	5,000	.043		

.4 to 1,000 ohms	Net Ea.	$0.53
1,100 to 5,000 ohms	Net Ea.	.56
6,000 to 10,000 ohms	Net Ea.	.64
11,000 to 20,000 ohms	Net Ea.	.72
22,500 to 40,000 ohms	Net Ea.	.76
40,000 and 50,000 ohms	Net Ea.	.86

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

WARD-LEONARD AXIOHMS

Ruggedly built 5 and 10-watt vitreous enamel-coated power type resistors with ½" axial leads of No. 20 gauge alloy wire. Hot tin-dipped and permanently anchored by an exclusive Ward-Leonard process. No mounting brackets required. Standard tolerance is ± 5%.

Core Size
Type 5X—5 Watt—1" Long x 11/32" Dia.
Type 10X—10 Watt—1¾" Long x 13/32" Dia.

Resistance in Ohms	Type 5X Net Ea.	Type 10X Net Ea.	Resistance in Ohms	Type 5X Net Ea.	Type 10X Net Ea.
1	$.48	$.54	1,200	$.52	$.58
1.5	.48	.54	1,250	.52	.58
2	.48	.54	1,500	.52	.58
3	.48	.54	1,750	.52	.58
4	.48	.54	2,000	.52	.58
5	.48	.54	2.250	.52	.58
7.5	.48	.54	2,500	.52	.58
10	.48	.54	3,000	.52	.58
12	.48	.54	3,500	.52	.58
15	.48	.54	4,000	.52	.58
20	.48	.54	4,500	.52	.58
25	.48	.54	5,000	.52	.58
30	.48	.54	6,000	.56	.58
35	.48	.54	7,000	.56	.66
40	.48	.54	7,500	.56	.66
50	.48	.54	8,000	.56	.66
75	.48	.54	8,500	.56	.66
100	.48	.54	9,000	.56	.66
125	.48	.54	10,000	.56	.66
150	.48	.54	11,000		.74
200	.48	.54	12,000		.74
225	.48	.54	12,500		.74
250	.48	.54	13,500		.74
300	.48	.54	15,000		.74
350	.48	.54	16,000		.74
400	.48	.54	17,500		.74
450	.48	.54	18,000		.74
500	.48	.54	20,000		.74
600	.48	.54	22,500		.78
700	.48	.54	25,000		.78
750	.48	.54	30,000		.78
800	.48	.54	35,000		.78
900	.48	.54	40,000		.78
1,000	.48	.54	45,000		.88
1,100	.52	.58	50,000		.88

WARD-LEONARD STRIPHOMS

Resistors for limited space applications, particularly in compact equipments built for aviation, communications, sound, signal, geo-physical and numerous other installations. Units may be stacked to provide a wide range of resistance values and wattage ratings. Standard tolerance: ± 5%.

SIZE CODE

Type	Watt Rating	Resistor Length	Mounting Centers
30S	30	1¼"	2"
40S	40	2"	2¾"
55S	55	3½"	4¼"
65S	65	4¾"	5½"
75S	75	6"	6¾"

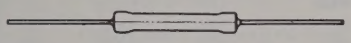
Resistance in Ohms	Type 30S Net Each	Type 40S Net Each	Type 55S Net Each	Type 65S Net Each	Type 75S Net Each
1	$1.10	$1.16	$1.33	$1.52	$1.66
3	1.10	1.16	1.33	1.52	1.66
5	1.10	1.16	1.33	1.52	1.66
10	1.10	1.16	1.33	1.52	1.66
15	1.10	1.16	1.33	1.52	1.66
25	1.10	1.16	1.33	1.52	1.66
50	1.10	1.16	1.33	1.52	1.66
100	1.10	1.16	1.33	1.52	1.66
150	1.10	1.16	1.33	1.52	1.66
200	1.10	1.16	1.33	1.52	1.66
250	1.10	1.16	1.33	1.52	1.66
400	1.10	1.16	1.33	1.52	1.66
500	1.10	1.16	1.33	1.52	1.66
750	1.10	1.16	1.33	1.52	1.66
1,000	1.10	1.16	1.33	1.52	1.66
1,250	1.10	1.16	1.33	1.52	1.66
1,500	1.10	1.16	1.33	1.52	1.66
2,000	1.10	1.16	1.33	1.52	1.66
2,500	1.10	1.16	1.33	1.52	1.66
3,000	1.19	1.24	1.41	1.60	1.73
3,500	1.19	1.24	1.41	1.60	1.73
4,000	1.19	1.24	1.41	1.60	1.73
5,000	1.19	1.24	1.41	1.60	1.73
7,500		1.39	1.56	1.74	1.88
10,000		1.39	1.56	1.74	1.88
15,000		1.45	1.63	1.81	1.94
20,000			1.69	1.88	2.02
25,000			1.79	1.97	2.11
30,000			1.87	2.06	2.19
35,000				2.06	2.19
40,000				2.15	2.27
50,000				2.15	2.38
60,000					2.38
65,000					2.38

SPRAGUE
BLUE JACKET POWER RESISTORS

Vitreous enamel resistors in 3, 5 and 10-watt types with 2" axial leads. Standard tolerance is ±5%.

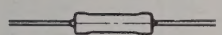
TYPE AND SIZE CODE

Cat. No.	Wattage Rating	L.	x	D.	Max. Res.
151E	3	17/32"		13/64"	10,000 Ohms
27E	5	1 1/8"		5/16"	30,000 Ohms
28E	10	1 7/8"		5/16"	50,000 Ohms



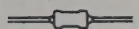
10 Watts
Type 28E

Nominal Ohms	Max. MA	Net Ea.
5	1414	.44
10	1000	.44
15	830	.44
20	707	.44
25	630	.44
30	575	.44
40	500	.44
50	447	.44
75	365	.44
100	316	.44
150	259	.44
200	223	.44
250	200	.44
300	182	.44
400	158	.44
500	141	.44
600	129	.44
700	119	.44
750	115	.44
800	112	.44
900	105	.44
1000	100	.44
1250	89	.47
1500	81	.47
1750	75	.47
2000	70	.47
2500	63	.47
3000	57	.47
4000	50	.47
5000	44	.47
6000	41	.53
7500	36	.53
8000	35	.53
9000	33	.53
10000	32	.53
12000	29	.59
14000	26	.59
15000	25	.59
17500	24	.59
20000	21	.65
25000	20	.71
30000	18	.76
35000	17	.88
40000	16	.97
45000	15	1.03
50000	14	1.06



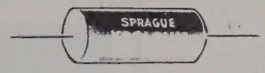
5 Watts
Type 27E

Nominal Ohms	Max. MA	Net Ea.
10	707	.38
15	587	.38
20	500	.38
25	446	.38
30	406	.38
40	354	.38
50	316	.38
75	258	.38
100	224	.38
150	183	.38
200	158	.38
250	141	.38
300	129	.38
400	112	.38
500	100	.38
600	91	.38
700	84	.38
800	79	.38
900	74	.38
1000	70	.38
1250	63	.41
1500	57	.41
1750	53	.41
2000	50	.41
2500	44	.41
3000	40	.41
4000	35	.41
5000	31	.41
6000	28	.47
7000	26	.47
7500	25	.47
8000	25	.47
9000	23	.47
10000	22	.47
12500	20	.56
15000	18	.56
17500	17	.56
20000	16	.56
25000	14	.65
30000	13	.71



3 Watts
Type 151E

Nominal Ohms	Max. MA	Net Ea.
10	548	.32
15	446	.32
20	387	.32
25	346	.32
30	316	.32
40	274	.32
50	245	.32
75	200	.32
100	173	.32
150	141	.32
200	122	.32
250	109	.32
300	100	.32
400	87	.32
500	77	.32
600	71	.32
700	66	.32
800	61	.32
900	58	.32
1000	55	.32
1250	49	.32
1500	45	.32
1750	41	.32
2000	39	.32
2500	35	.32
3000	32	.32
4000	27	.32
5000	24	.35
6000	22	.35
7500	18	.35
8000	17	.35
9000	16	.35
10000	15	.35



SPRAGUE KOOLOHM
Wire Wound Resistors

Wound with wire which is insulated before winding with a flexible ceramic coating. This coating is impervious to heat as high as 1000° C. Each resistor is "tropicalized" by a glazed ceramic outer coating and new type end seals which offer complete protection against moisture or any other climatic conditions. May be mounted anywhere—even flat against chassis or grounded parts. Extremely high insulation resistance —10,000 volts from surface of ceramic jacket to inner resistance elements. Insulated wire permits winding higher values in layers, which means much smaller physical sizes for each wattage rating. Insulated wire permits true "non-inductive" wound designs.

NOTE: All NIT types are non-inductive.

SIZE: 5-Watt Type 5KT and 5NIT—15/32" Dia. x 1-7/32" Long. 10-Watt Type 10KT and 10NIT—15/32" Dia. x 1-27/32" Long.

Resistance in Ohms	Type 5KT Net Each	Type 5NIT Net Each	Type 10KT Net Each	Type 10NIT Net Each
5	$.39	$.59	$.45	$.59
10	.39	.59	.45	.59
15	.39	.59	.45	.59
20	.39	.59	.45	.59
25	.39	.59	.45	.59
30	.39	.59	.45	.59
40	.39	.59	.45	.59
50	.39	.59	.45	.59
75	.39	.59	.45	.59
100	.39	.59	.45	.59
150	.39	.59	.45	.59
200	.39	.59	.45	.59
250	.39	.59	.45	.59
300	.39	.59	.45	.59
400	.39	.59	.45	.59
500	.39	.59	.45	.59
600	.39	.59	.45	.59
700	.39	.59	.45	.59
750	.39	.59	.45	.59
800	.39	.59	.45	.59
900	.39	.59	.45	.59
1,000	.39	.59	.45	.59
1,250	.42	.68	.48	.68
1,500	.42	.68	.48	.68
1,750	.42	.68	.48	.48
2,000	.42	.68	.48	.68
2,500	.42	.64	.48	.74
3,000	.42	.64	.48	.74
4,000	.42	.64	.48	.74
5,000	.42	.77	.48	.77
6,000	.48		.53	.77
7,000	.48			
7,500	.48		.53	1.03
8,000	.48		.53	1.03
9,000	.48		.53	1.03
10,000	.48		.53	1.12
12,000			.59	
12,500	.53		.59	
14,000	.53		.59	
15,000	.56		.59	
17,500			.59	
20,000	.56		.65	
25,000	.65		.71	
30,000	.71		.77	
35,000	.83		.89	
40,000	.89		.98	
50,000			1.06	
60,000			1.18	
70,000			.130	

CLAROSTAT GREENOHMS
Adjustable Wire Wound Power Resistors

Tough Power Resistors made with exclusive Clarostat inorganic cement coating. Will withstand heavy overloads, humidity, high heat and severe heat shock. Tolerance ±10%.

Type No. PR10FA-10-Watt

Dimensions: 5/16" dia. x 1¼" long

Ohms	Ohms	Ohms	Ohms
1	100	1,000	6,000
2	150	1,250	7,000
3	200	1,500	7,500
5	250	2,000	8,000
7.5	300	2,250	8,500
10	350	2,500	9,000
15	400	3,000	10,000
20	500	3,500	
25	600	4,000	
50	750	4,500	
75	800	5,000	

$.50 Net Ea.

Type No. PR25K-25-Watt

Dimensions: 9/16" dia. x 2½" long

Ohms	Ohms	Ohms	Ohms
1	100	1,500	7,500
2	150	2,000	8,000
3	200	2,250	9,000
5	250	2,500	10,000
7.5	300	3,000	12,000
10	400	3,500	15,000
15	500	4,000	20,000
20	750	4,500	25,000
25	800	5,000	50,000
50	1,000	6,000	
75	1,250	7,000	

	Net Ea.
1 to 5000 ohms	$ .56
6,000 to 15,000 ohms	.65
20,000 to 25,000 ohms	.73
50,000 ohms	.88

95

Ohms	Type K50NA ¾" dia. x 4½" l. 50-watt	Type K80NA ¾" dia. x 6½" l. 80-watt	Type K100WA 1⅛" dia. x 6½" l. 115-watt	Type K160WA 1⅛" dia. x 8½" l. 160-watt	Type K200WA 1⅛" dia. x 10½" l. 200-watt
5	$ .88	$1.03	$1.18	$1.47	$1.76
10	.88	1.03	1.18	1.47	1.76
15	.88	1.03	1.18	1.47	1.76
20	.88	1.03	1.18	1.47	1.76
25	.88	1.03	1.18	1.47	1.76
50	.88	1.03	1.18	1.47	1.76
75	.88	1.03	1.18	1.47	1.76
100	.88	1.03	1.18	1.47	1.76
150	.88	1.03	1.18	1.47	1.76
200	.88	1.03	1.18	1.47	1.76
250	.88	1.03	1.18	1.47	1.76
300	.88	1.03	1.18	1.47	1.76
400	.88	1.03	1.18	1.47	1.76
500	.88	1.03	1.18	1.47	1.76
750	.88	1.03	1.18	1.47	1.76
1,000	.88	1.03	1.18	1.47	1.76
1,250	.88	1.03	1.18	1.47	1.76
1,500	.88	1.03	1.18	1.47	1.76
2,000	.88	1.03	1.18	1.47	1.76
2,500	.88	1.03	1.18	1.47	1.76
3,500	.88	1.03	1.32	1.47	1.76
4,000	.88	1.03	1.32	1.47	1.76
4,500	.88	1.03	1.32	1.47	1.76
5,000	.88	1.03	1.32	1.56	1.91
6,000	1.03	1.18	1.32	1.56	1.91
7,000	1.03	1.18	1.32	1.56	1.91
7,500	1.03	1.18	1.32	1.56	1.91
8,000	1.03	1.18	1.32	1.56	1.91
9,000	1.03	1.18	1.32	1.56	1.91
10,000	1.03	1.18	1.32	1.56	1.91
12,000	1.03	1.18	1.32	1.70	2.06
5,000	1.03	1.18	1.32	1.91	2.20
0,000	1.03	1.18	1.32	1.91	2.20
25,000	1.03	1.18	1.32	1.91	2.20
30,000	1.18	1.32	1.62	1.91	2.20
35,000	1.18	1.32	1.62	1.91	2.20
40,000	1.18	1.32	1.62	1.91	2.20
45,000	1.18	1.32	1.62	1.91	2.20
50,000	1.18	1.32	1.62	1.91	2.20
60,000	1.47	1.47	1.76	2.20	2.20
75,000	1.47	1.47	1.76	2.20	2.20
80,000	1.47	1.47	2.06	2.20	2.50
100,000	1.47	1.47	2.06	2.20	2.50
125,000			2.06	2.50	
150,000			2.20	2.50	

Supplied with Mounting Brackets at no Extra Cost.

CLAROSTAT GREENOHMS
Fixed Wire Wound Power Resistors

Type No. PR5F-5-Watt

Dimensions: ⅛" dia. x 1" long.

The baby member of the famous Clarostat Greenohm family. Available in standard resistance values from 1 ohm to 7,500 ohms

All ohmages ..... **$.29 Net Ea.**

Type No. PR10F-10-Watt

Dimensions: 5/16" dia. x 1¾" long

Ohms	Ohms	Ohms	Ohms
1	125	1,200	10,000
2	150	1,250	11,000
3	200	1,500	12,000
4	225	1,750	12,500
5	250	2,000	13,500
7.5	300	2,250	14,500
10	350	2,500	15,000
12	400	3,000	16,000
15	450	3,500	17,500
20	500	4,000	18,000
25	600	4,500	20,000
30	700	5,000	22,500
35	750	6,000	25,000
40	800	7,000	30,000
50	900	7,500	35,000
75	1,000	8,000	40,000
100	1,100	8,500	50,000

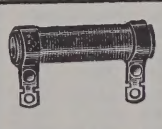
All ohmages — **$.32 Net Ea.**

Type No. PR20K-20-Watt

Dimensions: 9/16" dia. x 2" long

Ohms	Ohms	Ohms	Ohms
5	800	5,000	55,000
10	850	6,000	60,000
25	1,000	7,000	65,000
50	1,200	7,500	70,000
75	1,250	8,000	75,000
100	1,500	9,000	80,000
150	1,750	10,000	85,000
200	1,850	12,500	90,000
250	2,000	15,000	95,000
300	2,250	20,000	100,000
350	2,500	25,000	
400	2,750	30,000	
500	3,000	35,000	
650	3,500	40,000	
700	4,000	45,000	
750	4,500	50,000	

	Net Ea.
1 to 15,000 ohms	$ .38
20,000 to 50,000 ohms	.50
55,000 to 100,000 ohms	.65



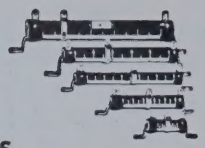
Type No. P25KA-25-Watt

Dimensions: 9/16" dia. x 2½" long

Ohms	Ohms	Ohms	Ohms	Ohms
1	150	2,250	10,000	75,000
2	200	2,500	12,000	80,000
3	250	3,000	15,000	85,000
5	300	3,500	20,000	90,000
7.5	400	4,000	25,000	100,000
10	500	4,500	30,000	
15	750	5,000	35,000	
20	800	6,000	40,000	
25	1,000	7,000	45,000	
50	1,250	7,500	50,000	
75	1,500	8,000	60,000	
100	2,000	9,000	70,000	

	Net Ea.
1 to 5,000 ohms	$ .44
6,000 to 15,000 ohms	.50
20,000 to 50,000 ohms	.59
60,000 ohms	.68
70,000 ohms	.73
75,000 ohms	.76
80,000 ohms	.79
85,000 ohms	.88
90,000 ohms	.94
100,000 ohms	1.03

Supplied with Mounting Brackets at No Extra Cost



OHMITE
POWER RESISTORS
Fixed and Adjustable Types

Wire wound on highest grade ceramic cores. Insulated by Ohmite vitreous enamel. The best alloy and largest possible wire size are used for each resistance. Wattage ratings are for use in free air. Where air circulation is restricted, do not use at more than one-half rating. *It is important to remember that on the adjustable types, the given wattage applies only when the entire resistance is in the circuit.* When the adjustable lug is set at an intermediate point, the rating is reduced proportionately. A safe rule to follow is to make sure the maximum rated current is not exceeded. All resistors are supplied with mounting brackets.

25 WATT FIXED RESISTOR

Core: 2" x 9/16" — Code: ACKER
Rating—25 Watts in Free Air for Resistance Values up to 10,000 Ohms
Furnished with No. 9 Brackets
Mounting Centers 2¾"

Stock No.	Ohms Res.	Max. Volts	Max. Amps.	Net Ea.
0200J	1	5	5.000	$ .56
0200K	2	7	3.535	.56
0200L	3	8	2.885	.56
0200N	4	10	2.500	.56
0200A	5	11	2.235	.56
0200B	10	15	1.580	.56
0200R	15	19	1.290	.56
0200C	25	25	1.000	.56
0200D	50	35	.707	.56
0200E	75	43	.577	.56
0200F	100	50	.500	.56
0200G	150	61	.408	.56
0200H	200	70	.353	.56
0201	250	79	.316	.56
0202	500	111	.223	.56
0203	750	137	.182	.56
0204	800	141	.176	.56
0205	1,000	158	.158	.56
0206	1,500	193	.129	.60
0207	2,000	223	.111	.60
0208	2,500	250	.100	.60
0209	3,000	273	.091	.60
0210	3,500	295	.084	.60
0211	4,000	316	.079	.60
0212	5,000	353	.070	.60
0213	6,000	387	.064	.66
0214	7,500	432	.057	.66
0215	10,000	500	.050	.66
0216	12,000	505	.042	.69
0217	15,000	512	.034	.69
0218	20,000	523	.026	.69
0219	25,000	533	.021	.80
0220	30,000	540	.018	.80
0221	35,000	555	.015	.80
0222	40,000	567	.014	.80
0224	50,000	588	.012	.92
0225	60,000	610	.010	.92
0226	70,000	633	.009	1.08
0227	80,000	655	.008	1.08
0229	100,000	700	.007	1.24

50 WATT FIXED RESISTOR

Core: 4" x 9/16" — Code: ABZUG
Rating—50 Watts in Free Air for Resistance Values up to 15,000 Ohms
Furnished with No. 9 Brackets
Mounting Centers 4¾"

Stock No.	Ohms Res.	Max. Volts	Max. Amps.	Net Ea.
0400J	1	7	7.070	$1.31
0400K	2	10	5.000	.96
0400L	3	12	4.070	.96
0400N	4	14	3.535	.96
0400A	5	15	3.160	.96
0400B	10	22	2.235	.96
0400C	25	35	1.414	.96
0400D	50	50	1.000	.96
0400E	75	61	.816	.96
0400F	100	70	.707	.96
0400G	150	86	.577	.96
0400H	200	100	.500	.96
0401	250	111	.447	.96
0402	500	158	.316	.96
0403	750	193	.258	.96
0404	800	200	.250	.96
0405	1,000	223	.223	.96
0406	1,500	274	.182	1.02
0407	2,000	316	.158	1.02
0408	2,500	353	.141	1.02
0409	3,000	387	.129	1.02
0410	4,000	447	.111	1.02
0411	5,000	500	.100	1.02
0412	7,500	612	.081	1.12
0413	8,000	632	.079	1.12
0414	10,000	707	.070	1.12
0415	12,000	775	.064	1.22
0416	15,000	867	.057	1.22
0417	20,000	960	.048	1.22
0418	25,000	1030	.041	1.37
0419	35,000	1125	.032	1.37
0420	50,000	1160	.023	1.51
0421	75,000	1210	.016	1.71
0422	100,000	1250	.012	1.88
0423	125,000	1290	.010	1.98
0424	150,000	1335	.009	2.06
0425	175,000	1375	.008	2.14
0426	200,000	1415	.007	2.22
0427	225,000.	1450	.006	2.48
0428	250,000	1500	.006	2.48

200 WATT FIXED RESISTOR

Core: 10½" x 1⅛" — Code: ABAAL
Rating — 200 Watts in Free Air for Resistance Values up to 30,000 Ohms
Furnished with No. 18 Brackets
Mounting Centers 11¾"

Stock No.	Ohms Res.	Max. Volts	Max. Amps.	Net Ea.
0900C	1	14	14.140	$2.66
0900D	2	20	10.000	2.66
0900E	3	24	8.160	2.66
0900F	4	28	7.070	2.66
0900A	5	31	6.320	2.66
0900B	10	44	4.470	1.89
0901	25	70	2.828	1.89
0902	50	100	2.000	1.89
0903	75	122	1.635	1.89
0904	100	141	1.414	1.89
0905	150	173	1.153	1.89
0906	250	223	.894	1.89
0907	500	316	.632	1.89
0908	750	387	.516	1.89
0909	1,000	447	.447	1.89
0910	1,500	548	.365	1.94
0911	2,000	632	.316	1.94
0912	2,500	707	.283	1.94
0913	3,000	775	.258	1.94
0914	5,000	1000	.200	1.94
0915	7,500	1228	.163	2.07
0916	10,000	1410	.141	2.07
0917	15,000	1731	.115	2.21
0918	20,000	2000	.100	2.21
0919	25,000	2235	.089	2.29
0920	30,000	2450	.081	2.29
0921	40,000	2455	.061	2.29
0922	50,000	2460	.049	2.37
0923	60,000	2470	.041	2.37
0924	75,000	2480	.033	2.51
0925	100,000	2500	.025	2.66

100 WATT FIXED RESISTOR

Core: 6½" x ¾" — Code: ABNEP
Rating—100 Watts in Free Air for Resistance Values up to 20,000 Ohms
Furnished with No. 12 Brackets
Mounting Centers 7⅜"

Stock No.	Ohms Res.	Max. Volts	Max. Amps	Net Ea.
0600C	1	10	10.000	$1.97
0600D	2	14	7.070	1.97
0600E	3	17	5.770	1.97
0600F	4	20	5.000	1.42
0600A	5	22	4.470	1.42
0600B	10	31	3.160	1.42
0601	25	50	2.000	1.42
0602	50	70	1.414	1.42
0603	75	86	1.153	1.42
0604	100	100	1.000	1.42
0604B	125	111	.895	1.42
0605	150	122	.816	1.42
0606	250	158	.632	1.42
0607	500	223	.447	1.42
0608	750	273	.365	1.42
0609	1,000	316	.316	1.42
0610	1,500	387	.258	1.48
0611	2,000	448	.223	1.48
0612	2,500	500	.200	1.48
0613	3,000	548	.182	1.48
0614	5,000	707	.141	1.48
0615	7,500	867	.115	1.58
0616	10,000	1000	.100	1.58
0617	15,000	1225	.081	1.74
0618	20,000	1415	.070	1.74
0619	25,000	1420	.053	1.88
0620	30,000	1425	.047	1.88
0621	40,000	1435	.036	1.88
0622	50,000	1445	.029	1.97
0623	60,000	1460	.024	1.97
0624	75,000	1475	.019	2.10
0625	100,000	1500	.015	2.23

Be Right with OHMITE
RHEOSTATS • RESISTORS • TAP SWITCHES

10 WATT SIZE—Dividohm

Core: 1⅜" x 9/16"—Code: DIVAA
Furnished with No. 5 Brackets
Mounting Centers 2¼"

Stock No.	Ohms	Max. Amps	Net Ea.
1001	1	3.150	$ .86
1002	2	2.235	.86
1003	3	1.825	.86
1004	5	1.415	.86
1005	7.5	1.155	.86
1006	10	1.000	.86
1007	15	.816	.86
1008	20	.707	.86
1009	25	.632	.86
1010	50	.447	.86
1011	75	.365	.86
1012	100	.316	.86
1013	150	.258	.86
1014	200	.223	.86
1015	250	.200	.86
1016	300	.182	.86
1017	350	.169	.86
1018	400	.158	.86
1019	500	.141	.86
1020	600	.129	.86
1021	750	.115	.86
1022	800	.111	.86
1023	1,000	.100	.86
1024	1,250	.089	.90
1025	1,500	.079	.90
1026	2,000	.069	.90
1027	2,250	.064	.90
1028	2,500	.063	.90
1029	3,000	.056	.90
1030	3,500	.051	.90
1031	4,000	.047	.90
1032	4,500	.045	.90
1033	5,000	.043	.90
1034	6,000	.038	.96
1035	7,000	.034	.96
1036	7,500	.033	.96
1037	8,000	.031	.96
1038	8,500	.029	.96
1039	9,000	.028	.96
1040	10,000	.026	.96

75 WATT SIZE—Dividohm

Core: 6" x 9/16" — Code: DIVDO
Furnished with No. 9 Brackets
Mounting Centers 6¼"

Stock No.	Ohms	Max. Amps.	Net Ea.
0769A	1	8.660	$2.07
0769B	2	6.120	2.07
0769C	3	5.000	1.61
0769D	4	4.330	1.61
0769	5	3.870	1.61
0770	10	2.735	1.61
0771	15	2.236	1.61
0772	25	1.732	1.61
0773	50	1.224	1.61
0774	100	.866	1.61
0774B	200	.612	1.61
0775	250	.547	1.61
0775B	300	.500	1.61
0775C	400	.433	1.61
0776	500	.387	1.61
0777	750	.316	1.61
0777B	800	.306	1.61
0778	1,000	.273	1.61
0778B	1,250	.245	1.66
0779	1,500	.223	1.66
0780	2,000	.193	1.66
0780B	2,250	.182	1.66
0781	2,500	.173	1.66
0781B	3,000	.158	1.66
0782	3,500	.146	1.66
0782B	4,000	.136	1.66
0782C	4,500	.129	1.66
0783	5,000	.122	1.66
0783B	6,000	.111	1.76
0783C	7,000	.103	1.76
0783D	7,200	.102	1.76
0784	7,500	.100	1.76
0784B	8,000	.096	1.76
0784C	9,000	.091	1.76
0785	10,000	.086	1.76
0785B	12,000	.079	1.88
0786	15,000	.070	1.88
0787	20,000	.061	1.88
0788	25,000	.049	2.07
0789	30,000	.042	2.07
0790	35,000	.036	2.07
0791	40,000	.032	2.07
0792	45,000	.029	2.12
0793	50,000	.026	2.12
0794	60,000	.022	2.12
0795	80,000	.017	2.33
0796	100,000	.013	2.54

25 WATT SIZE—Dividohm

Core: 2" x 9/16" — Code: DIVBE
Furnished with No. 9 Brackets
Mounting Centers 2¾"

Stock No.	Ohms	Max. Amps	Net Ea.
0360	1	5 000	$1.10
0360B	2	3 535	1.10
0361	3	2 885	1.10
0362	5	2 235	1.10
0362B	7.5	1 825	1.10
0363	10	1 580	1.10
0364	15	1 290	1.10
0364B	20	1 117	1.10
0365	25	1 000	1.10
0366	50	707	1.10
0367	75	577	1.10
0368	100	500	1.10
0369	150	408	1.10
0370	200	353	1.10
0371	250	316	1.10
0371B	300	288	1.10
0371C	400	250	1.10
0372	500	223	1.10
0373	750	.182	1.10
0374	800	.176	1.10
0375	1,000	.158	1.10
0375B	1,250	.141	1.11
0376	1,500	.129	1.11
0377	2,000	.111	1.11
0377B	2,250	.105	1.11
0378	2,500	.100	1.11
0379	3,000	.091	1.11
0380	3,500	.084	1.11
0381	4,000	.079	1.11
0381B	4,500	.074	1.11
0382	5,000	.070	1.11
0383	6,000	.064	1.20
0383B	7,000	.060	1.20
0383C	7,200	.059	1.20
0384	7,500	.057	1.20
0384B	8,000	.055	1.20
0384C	9,000	.052	1.20
0385	10,000	.050	1.20
0386	12,000	.042	1.23
0387	15,000	.034	1.23
0388	20,000	.026	1.23
0389	25,000	.021	1.34

100 WATT SIZE—Dividohm

Core: 6½" x ¾" — Code: DIVEU
Furnished with No. 12 Brackets
Mounting Centers 7⅜"

Stock No.	Ohms	Max. Amps	Net Ea.
0956A	1	10 000	$2.66
0956B	2	7 070	2.66
0956C	3	5 770	2.66
0956D	4	5.000	2.10
0956	5	4 470	2.10
0957	10	3 160	2.10
0958	25	2 000	2.10
0959	50	1 414	2.10
0960	100	1 000	2.10
0960B	250	.632	2.10
0961	500	.447	2.10
0962	1,000	.316	2.10
0962B	1,500	.258	2.15
0963	2,500	.200	2.15
0964	5,000	.141	2.15
0965	10,000	100	2.27
0966	15,000	.081	2.42
0967	20,000	070	2.42
0968	25,000	.053	2.56
0969	30,000	047	2.56
0970	40,000	036	2.56
0971	50,000	029	2.66
0972	75,000	.019	2.79
0973	100,000	015	2.91

160 WATT SIZE—Dividohm

Core: 8½" x 1¼"—Code: DIVFF
Furnished with No. 18 Brackets
Mounting Centers 9¾"

Stock No.	Ohms	Max. Amps.	Net Ea.
1156A	1	12 650	$3.14
1156B	2	8 940	3.14
1156C	3	7 300	3.14
1156D	4	6 320	3.14
1156	5	5 660	3.14
1157	10	4 000	2.43
1158	25	2 530	2.43
1159	50	1 788	2.43
1160	100	1 265	2.43
1160B	250	.800	2.43
1161	500	566	2.43
1162	1,000	400	2.43
1162B	1,500	326	2.46
1163	2,500	253	2.46
1164	5,000	179	2.46
1165	10,000	126	2.61
1166	15,000	103	2.75
1167	20,000	089	2.75
1168	25,000	080	2.83
1169	30,000	067	2.83
1170	40,000	050	2.83
1171	50,000	040	2.90
1172	75,000	027	3.04
1173	100,000	021	3.19

50 WATT SIZE—Dividohm

Core: 4" x 9/16" — Code: DIVCI
Furnished with No. 9 Brackets
Mounting Centers 4¾"

Stock No.	Ohms	Max. Amps	Net Ea.
0560A	1	7 070	$1.76
0560B	2	5.000	1.39
0560C	3	4 070	1.39
0560D	4	3 535	1.39
0560	5	3 160	1.39
0561	10	2 235	1.39
0562	25	1 414	1.39
0563	50	1.000	1.39
0564	75	816	1.39
0565	100	707	1.39
0566	150	577	1.39
0567	200	500	1.39
0568	250	447	1.39
0568B	300	408	1.39
0568C	400	353	1.39
0569	500	316	1.39
0570	750	258	1.39
0571	800	250	1.39
0572	1,000	223	1.39
0572B	1,250	200	1.45
0573	1,500	182	1.45
0574	2,000	158	1.45
0574B	2,250	149	1.45
0575	2,500	141	1.45
0576	3,000	129	1.45
0576B	3,500	119	1.45
0577	4,000	111	1.45
0577B	4,500	105	1.45
0578	5,000	100	1.45
0578B	6,000	091	1.55
0578C	7,000	084	1.55
0578D	7,200	083	1.55
0579	7,500	081	1.55
0580	8,000	079	1.55
0580B	9,000	074	1.55
0581	10,000	070	1.55
0582	12,000	064	1.67
0583	15,000	057	1.67
0584	20,000	048	1.67
0585	25,000	041	1.81
0586	30,000	036	1.81
0587	40,000	028	1.81
0588	50,000	023	1.94
0589	60,000	019	1.94
0590	80,000	015	2.16
0591	100,000	012	2.31

200 WATT SIZE—Dividohm

Core: 10½" x 1⅛"—Code: DIVGG
Furnished with No. 18 Brackets
Mounting Centers 11¾"

Stock No.	Ohms	Max. Amps	Net Ea.
1358A	1	14 140	$3.33
1358B	2	10 000	3.33
1358C	3	8 160	3.33
1358D	4	7 070	3.33
1358	5	6 320	3.33
1357	10	4 470	2.56
1358	25	2 828	2.56
1359	50	2 000	2.56
1360	100	1 414	2.56
1360B	250	894	2.56
1361	500	.632	2.56
1362	1,000	.447	2.56
1362B	1,500	.365	2.61
1363	2,500	.283	2.61
1364	5,000	.200	2.61
1365	10,000	.141	2.76
1366	15,000	.115	2.89
1367	20,000	.100	2.89
1368	25,000	.089	2.96
1369	30,000	.081	2.96
1370	40,000	.061	2.96
1371	50,000	.049	3.03
1372	75,000	.033	3.18
1373	100,000	025	3.33

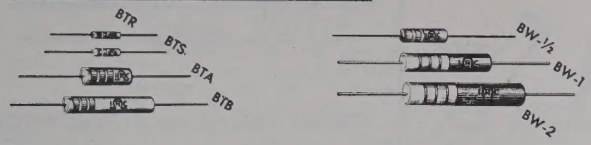
Standard Adjustable Lugs

Core Diam. Inches	Screw Driver Type Stock No.	Net Ea.	Bakelite Knob Type Stock No.	Net Ea.
9/16	1058	$ .15	....	....
9/16	0358	.15	0359	.22
¾	1958	.25	1859	.28
1⅛	2158	.25	2159	.28

Adjustable Lugs with Silver Contact Buttons

Core Diam. Inches	Screw Driver Type Stock No.	Net Ea.	Bakelite Knob Type Stock No.	Net Ea.
9/16	2161	$ .23	....	....
9/16	2164	.23	2165	$ .28
¾	2166	.28	2167	.38
1⅛	2170	.28	2171	.38

INSULATED RESISTORS



I. R. C. INSULATED RESISTORS

Composition Carbon And Wire Wound Types

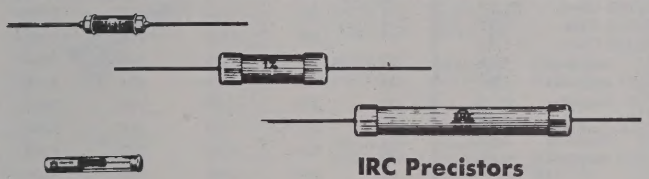
All resistance valves clearly marked with standard RETMA color code. All with 1½" tinned leads. Available in sizes as shown on standard value table within resistance range for each type.

COMPOSITION CARBON FILAMENT TYPES

Cat. No.	Tol.	Equiv. JAN Type	Watt Rating 40° C. Ambient	Size Dia.xL.	Resistance Range	Net Ea.	Net Ea. Per 100
BTR—	± 5%	RC09	¼	3/32"x13/32"	82 OHMS TO 22 MEG.	$.20	$.12
BTR—	±10%	RC09	¼	3/32"x13/32"	82 OHMS TO 22 MEG.	.10	.06
BTS—	± 5%	RC20	½	1/8"x13/32"	10 OHMS TO 22 MEG.	.20	.12
BTS—	±10%	RC20	½	1/8"x13/32"	10 OHMS TO 22 MEG.	.10	.06
BTA—	± 5%	RC30	1	¼"x23/32"	100 OHMS TO 22 MEG.	.30	.18
BTA—	±10%	RC30	1	¼"x23/32"	100 OHMS TO 22 MEG.	.15	.09
BTB—	± 5%	RC41	2	¼"x1¼"	330 OHMS TO 22 MEG.	.40	.24
BTB—	±10%	RC41	2	¼"x1¼"	330 OHMS TO 22 MEG.	.20	.12

WIRE WOUND TYPES

BW½—	5%	RU3 Max. 470SL	½	3/16"x 5/8"	0.24 OHMS TO 820 OHMS	$.20	$.12
BW½—	10%	RU3 Max. 470SL	½	3/16"x 5/8"	0.24 OHMS TO 820 OHMS	.10	.06
BW 1—	5%	RU4 Max. 2200SL	1	¼"x1¼"	0.47 OHMS TO 5100 OHMS	.30	.18
BW 1—	10%	RU4 Max. 2200SL	1	¼"x1¼"	0.47 OHMS TO 5100 OHMS	.15	.09
BW 2—	5%	RU6 Max. 3300SL	2	21/64"x1¾"	1.00 OHMS TO 8200 OHMS	.40	.24
BW..2—	10%	RU6 Max. 3300SL	2	21/64"x1¾"	1.00 OHMS TO 8200 OHMS	.20	.12



IRC Precistors

Deposited Carbon Resistors 1% Accuracy (25% C.)

Individually packed in capped plastic tubes for complete protection against scratches, jars and surface injury. Ideally suited to the requirements of instrumentation and advanced electronics because of the wide range of available values, high stability, low voltage co-efficient, excellent frequency characteristics, high voltage rating, low noise level and small size.

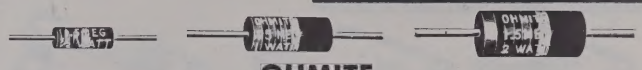
STOCK VALUES—TYPES DCC (½ WATT)—DCF (1 WATT)—DCH (2 WATTS)

OHMS	OHMS	OHMS	OHMS	OHMS	MEG	MEG
—	100	1000	10K	100K	1.0	10[FH]
—	110	1100	11K	110K	1.1	11[H]
—	120	1200	12K	120K	1.2	12[H]
—	130	1300	13K	130K	1.3	13[H]
—	150	1500	15K	150K	1.5	15[H]
—	160	1600	16K	160K	1.6	16[H]
—	180	1800	18K	180K	1.8	18[H]
—	200	2000	20K	200K	2.0	20[H]
—	220	2200	22K	220K	2.2[FH]	22[H]
—	240	2400	24K	240K	2.4[FH]	24[H]
—	250[F]	2500[F]	25K[F]	250K[F]	2.5[FH]	--
—	270	2700	27K	270K	2.7[FH]	27[H]
—	300	3000	30K	300K	3.0[FH]	30[H]
—	330	3300	33K	330K	3.3[FH]	—
—	360	3600	36K	360K	3.6[FH]	—
—	390	3900	39K	390K	3.9[FH]	—
—	400[F]	4000[F]	40K[F]	400K[F]	4.0[F]	—
—	430	4300	43K	430K	4.3[FH]	—
—	470	4700	47K	470K	4.7[FH]	—
—	500[F]	5000[F]	50K[F]	500K	5.0[FH]	—
51[C]	510	5100	51K	510K[FH]	5.1[FH]	—
56[C]	560	5600	56K	560K	5.6[FH]	—
62[C]	620	6200	62K	620K	6.2[FH]	--
68[C]	680	6800	68K	680K	6.8[FH]	—
75[C]	750	7500	75K	750K	7.5[FH]	--
82[C]	820	8200	82K	820K	8.2[FH]	—
91[C]	910	9100	91K	910K	9.1[FH]	—

C=DCC only F=DCF only H=DCH only FH=DCF & DCH only

Type	Watt Rating	Size	Available Values	Net Ea.
DCC	½	5/32"x 3/16"	51 Ohms to 2.0 Meg.	$ .39
DCF	1	5/32"x 15/16"	100 Ohms to 5.0 Meg.	.59
			Over 5.0 Meg. to 10.0 Meg.	.65
DCH	2	5/32"x2 1/16"	200 Ohms to 10.0 Meg.	.71
			Over 10.0 Meg. to 30.0 Meg	.76

Sun Radio can fill your quantity resistor requirements. Ask for our Special Prices!



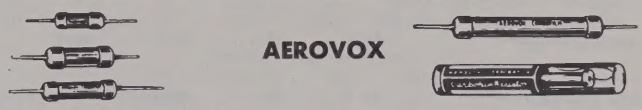
OHMITE

"Little Devil" Composition Resistors

(Made By Allen Bradley)

Available in sizes as shown within resistance range for type. RETMA color coded. Meet all requirements of JAN R11 Specifications, including high humidity and salt water immersion tests. Quantity price for 100 of one value only.

Type	Tol.	JAN Type	Watt Rating 70°C Ambient	Max. Volts	Size Dia. x L.	Resistance Range	Net Ea.	Net Ea. Per 100
EB½	±5%	RC20	½	350	9/64"x3/8"	10 Ohms to 22 Meg.	$.20	$.12
EB½	±10%	RC20	½	350	9/64"x3/8"	10 Ohms to 22 Meg.	.10	.06
GB1	±5%	RC30	1	500	7/32"x9/16"	10 Ohms to 22 Meg.	.30	.18
GB1	±10%	RC30	1	500	7/32"x9/16"	2.7 Ohms to 22 Meg.	.15	.09
HB2	±5%	RC40	2	1000	5/16"x11/16"	10 Ohms to 22 Meg.	.40	.24
HB2	±10%	RC40	2	1000	5/16"x11/16"	10 Ohms to 22 Meg.	.20	.12



AEROVOX

1% Carbofilm Precision Resistors

Made under licensed agreement with Western Electric, these precision resistors are the result of years of intensive research in developing components with extreme accuracy and stability. Carbofilm resistors are intended for circuits calling for the accuracy and stability of wire-wound resistors with the marked economy of carbon resistors. They serve a real need in test equipment and laboratory instruments. The Carbofilm resistors are a carbon deposit type and are available in the following standard stock sizes with the resistance value shown in the listing. Packed and sealed in plastic tubes for your protection.

Sizes: CP ½ watt 0.230D x 11/16L; CPL ½ watt 0.230D x 15/16L; CP 1 watt 0.293D x 15/16L; and CP 2 watt 0.293D x 2-1/16 L.

STANDARD STOCK VALUES CARBOFILM RESISTORS

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megohms	Megohms	
100	1300	9950	110,000	400,000	910,000	3.5	8.2	47.0
110	1450	10,000	120,000	430,000	Megohms	3.6	8.5	50.0
120	1500	11,000	125,000	450,000		3.9	9.0	100.0*
130	1750	12,000	130,000	470,000	1.0	4.0	9.1	
150	1800	12,500	150,000	500,000	1.1	4.3	10.0	
175	2000	13,000	175,000	510,000	1.2	4.5	12.0	
180	2200	13,500	180,000	550,000	1.25	4.7	12.5	
200	2250	15,000	200,000	560,000	1.3	5.0#	13.0	
220	2400	17,500	220,000	600,000	1.5	5.1	15.0	
225	2500	18,000	225,000	620,000	1.8	5.5	18.0	
240	2700	20,000	240,000	650,000	2.0	5.6	20.0	
250	2950	22,000	250,000	680,000	2.2	6.0	22.0	
270	3000	22,500	270,000	700,000	2.225	6.2	25.0	
300	3300	24,000	300,000	750,000	2.4	6.5	27.0	
330	3500	25,000	330,000	800,000	2.5	6.8	33.0	
350	3600	27,000	350,000	820,000	2.7	7.0	36.0	
360	3900	30,000	360,000	850,000	3.0	7.5	39.0	
390	4000	33,000	390,000	900,000	3.3	8.0	43.0	
400	4300	36,000						
430	4450	39,000						
450	4500	40,000						
470	4700	43,000						
500	5000	45,000						
510	5100	47,000						
550	5500	50,000						
560	5600	51,000						
600	5950	55,000						
620	6000	56,000						
650	6200	60,000						
680	6500	62,000						
750	6800	65,000						
800	7000	68,000						
820	7450	70,000						
850	7500	75,000						
900	8000	80,000						
910	8200	82,000						
1000	8500	85,000						
1100	8950	90,000						
1200	9000	91,000						
1250	9100	100,000						

CARBOFILM RESISTORS PRICES STANDARD VALUES ONLY		Net Each
CP-1/2	100 ohms to 5.0 megohms	$ .39
CPL-1/2	5.1 megohms to 7.5 megohms	.44
CP-1	100 ohms to 1.0 megohms	.56
	1.1 megohms to 5.0 megohms	.59
	5.1 megohms to 15 megohms	.65
CP-2	100 ohms to 10 megohms	.71
	Over 10 megohms to 20 megohms	.76
	Over 20 megohms to 30 megohms	103
	Over 30 megohms to 50 megohms	1.18
	*100 megohms	2.94

Standard tolerance ±1%

For addition of vinyl sleeve add $.15 to list price.

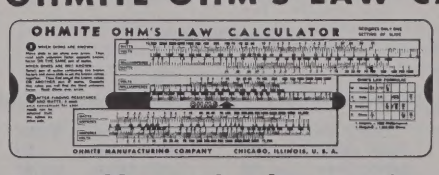
**For non-standard values double the list price of the next highest standard value.

*Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.

#Type CP-1/2 to 5.0 megohms. Type CPL-1/2 above 5.0 megohms.

*Meter multiplyer resistance values - other odd values can be ordered as specials.

OHMITE OHM'S LAW CALCULATOR



This handy Ohmite calculator is pocket size (3" x 9") and provides a solution to Ohm's Law problems with only one setting of the slide.

Two types of calculators are available—one made of varnished cardboard; the other, a deluxe plastic calculator, is made of durable, dimensionally stable Vinylite.

Ohm's Law Calculator (Cardboard) ..... Net Price **$0.25**
Ohm's Law Calculator (Plastic) ..... Net Price **1.50**

Sun Radio & ELECTRONICS CO. INC.

I.R.C.
PRECISION WIRE WOUND RESISTORS

IRC offers a complete line of redesigned Precision Wire Wound Resistors. These improved units are fully interchangeable with earlier types, while providing higher standards of performance plus new sizes and terminals. All IRC Precisions, except Type WW10J, are furnished with rugged lug terminals for soldered connections. Type WW10J has wire lead terminals 2" long.

MIL-R-93A. IRC Precision Wire Wound Resistors surpass MIL-R-93A Specifications (formerly JAN-R-93, characteristic B). MIL and JAN style equivalents are shown in the table below.

STANDARD STOCK VALUES

IRC TYPE NO.	WW2J	WW3J	WW4J	WW5J	WW8J	WW10J	WW11J
MIL-R-93A Type	RB19	RB16	RB17	RB18	RB15	— —	RB16
Old JAN Type	RB14	RB11	RB12	RB13	RB10	— —	RB11

TYPE WW2J

Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each
0.6 Megohm	$6.00	0.9 Megohm	$8.28	1.5 Megohms	$12.62	2.5 Megohms	$18.55
0.75 Megohm	6.00	1.0 Megohm	8.28	2.0 Megohms	15.24		

TYPE WW3J

Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each
0.1 Ohm	$1.78	250 Ohms	$1.05	5,000 Ohms	$1.05	50,000 Ohms	$1.23
0.2 Ohm	1.78	300 Ohms	1.05	7,500 Ohms	1.23	60,000 Ohms	1.23
0.5 Ohm	1.47	500 Ohms	1.05	10,000 Ohms	1.23	75,000 Ohms	1.55
1.0 Ohm	1.47	1,000 Ohms	1.05	12,500 Ohms	1.23	0.1 Megohm	1.55
5 Ohms	1.37	1,500 Ohms	1.05	15,000 Ohms	1.23	0.125 Megohm	1.83
10 Ohms	1.37	2,000 Ohms	1.05	20,000 Ohms	1.23	0.15 Megohm	2.13
25 Ohms	1.37	2,500 Ohms	1.05	22,500 Ohms	1.23	0.175 Megohm	2.13
50 Ohms	1.37	3,000 Ohms	1.05	25,000 Ohms	1.23	0.2 Megohm	1.78
100 Ohms	1.05	3,500 Ohms	1.05	30,000 Ohms	1.23	0.225 Megohm	1.78
200 Ohms	1.05	4,000 Ohms	1.05	40,000 Ohms	1.23		

TYPE WW4J

Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each
0.1 Ohm	$1.90	300 Ohms	$1.17	10,000 Ohms	$1.33	0.1 Megohm	$1.72
0.2 Ohm	1.90	500 Ohms	1.17	12,500 Ohms	1.33	0.125 Megohm	1.98
0.5 Ohm	1.64	1,000 Ohms	1.17	15,000 Ohms	1.33	0.15 Megohm	2.16
1.0 Ohm	1.43	1,500 Ohms	1.17	20,000 Ohms	1.33	0.175 Megohm	2.20
5 Ohms	1.43	2,000 Ohms	1.17	22,500 Ohms	1.33	0.2 Megohm	2.20
10 Ohms	1.43	2,500 Ohms	1.17	25,000 Ohms	1.33	0.225 Megohm	2.67
25 Ohms	1.43	3,000 Ohms	1.33	30,000 Ohms	1.72	0.25 Megohm	2.67
50 Ohms	1.43	3,500 Ohms	1.33	40,000 Ohms	1.72	0.3 Megohm	2.67
100 Ohms	1.17	4,000 Ohms	1.33	50,000 Ohms	1.72	0.4 Megohm	2.72
200 Ohms	1.17	5,000 Ohms	1.33	60,000 Ohms	1.72	0.5 Megohm	3.15
250 Ohms	1.17	7,500 Ohms	1.33	75,000 Ohms	1.72		

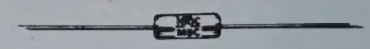
TYPE WW5J

Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each
0.6 Megohm	$5.10	0.75 Megohm	$6.00	0.9 Megohm	$5.35	1.0 Megohm	$6.50

TYPE WW10J

Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each	Stock Resistance Values	Net Each
10 Ohms	$1.22	500 Ohms	$ .98	4,000 Ohms	$1.07	25,000 Ohms	$1.17
25 Ohms	.98	1,000 Ohms	.98	5,000 Ohms	1.07	30,000 Ohms	1.17
50 Ohms	.98	1,500 Ohms	.98	7,500 Ohms	1.07	40,000 Ohms	1.30
100 Ohms	.98	2,000 Ohms	1.07	10,000 Ohms	1.07	50,000 Ohms	1.30
200 Ohms	.98	2,500 Ohms	1.07	12,500 Ohms	1.07	60,000 Ohms	1.42
250 Ohms	.98	3,000 Ohms	1.07	15,000 Ohms	1.17	75,000 Ohms	1.52
300 Ohms	.98	3,500 Ohms	1.07	20,000 Ohms	1.17	0.1 Megohm	1.52

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE



I. R. C.
CLOSE TOLERANCE PRECISTORS

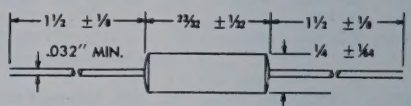
Molded Boron-Carbon Precistors
1% Accuracy ½ Watt

TYPE MBC

I.R.C.'s Molded Boron-Carbon Precistor is a precision film type resistor that incorporates the added advantages of a fully insulated unit. The molded plastic housing provides complete mechanical protection and minimizes the effect of moisture. Because of its greater heat dissipating capacity, load life characteristics for the Type MBC are improved over those of either boron or deposited carbon unmolded units. Boron-Carbons are particularly suited for applications where unmolded boron or deposited carbon units cannot be used due to the risk of mechanical damage to their coating, insulation breakdown or high moisture change.

Specifications

Wattage Rating: ½ watt at 40° C. ambient (per MIL-R-10509A), derated to 0 at 120° C.



STANDARD STOCK VALUES

Ohms	Ohms	Ohms	Ohms	Ohms
10	100	1,000	10K	100K
11	110	1,100	11K	110K
12	120	1,200	12K	120K
13	130	1,300	13K	130K
15	150	1,500	15K	150K
16	160	1,600	16K	160K
18	180	1,800	18K	180K
20	200	2,000	20K	200K
22	220	2,200	22K	220K
24	240	2,400	24K	240K
27	270	2,700	27K	270K
30	300	3,000	30K	300K
33	330	3,300	33K	330K
36	360	3,600	36K	360K
39	390	3,900	39K	390K
43	430	4,300	43K	430K
47	470	4,700	47K	470K
51	510	5,100	51K	510K
56	560	5,600	56K	—
62	620	6,200	62K	—
68	680	6,800	68K	—
75	750	7,500	75K	—
82	820	8,200	82K	—
91	910	9,100	91K	—

	Net Each
Standard Values and Tolerance	$ .59
Special Values and Tolerances	1.18

CONTINENTAL CARBON
1%-X-TYPE PRECISION RESISTORS

Metal film resistors formed on surface of low loss ceramic tubes. Hermetically sealed with smooth gray-colored enamel coating. Hollow body for withstanding temperatures to 400° F. Rated 500V. No. 18 AWG tinned copper radial leads 1½" long. We regularly stock a complete variety of standard sizes. We can supply on order any resistance within the ranges as shown.

Wattage	Cat. No.	Resistance Range	Net Ea.
½	NR20	1 Ohm to 1.0 Meg.	$.47
½	NR20	1.1 Meg. to 5.0 Meg.	.62
1	NR25	1 Ohm to 1.0 Meg.	.59
1	NR25	1.1 Meg. to 10 Meg.	.76
2	NR30	2 Ohm to 1 Meg.	.73
2	NR30	1.1 Meg. to 20 Meg.	.98
5	NR50	3 Ohm to 1 Meg.	.88
5	NR50	1.1 Meg. to 30 Meg.	1.18

Check SUN RADIO'S Prices For Your Quantity Requirements

I.R.C. CONTROLS

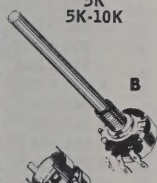
Types Q, PQ, RQ and M

1⅝" Diameter Volume Controls and Multi-Sections
Rated ½ Watt—500 Volt Maximum

Basic controls for all radio and eelctronic applications in a wide variety of resistance and tapers. **Type Q** (Fig. A.) is a standard replacement control with ¼" bushing and 2½" shaft that is knurled, flatted and slotted and fits most knobs without alteration. **Type PQ** (Fig. B.) has a ⅜" bushing with full round ¼" shaft—3" long. **Type RQ** (Fig. C.) has a very short ¼" screw-driver slot shaft with ⅜" bushing. **Type M** (Fig. D.) multi-sections are complete control sections that can be added like a switch to any Type Q, PQ or RQ controls to create an endless variety of dual, triple or even quadruple section controls. Each multi-section adds 19/32" depth to basic control.

A

C


B

D

Resistance In Ohms	Tap	Type Q. Cat. No.	Type PQ. Cat. No.	Type RQ. Cat. No.	Type M. Cat. No.	Net Ea.
250		Q11-201				$ .73
500		Q11-103	PQ11-103	RQ11-103	M11-103	.73
750		Q11-105				.73
750		Q17-105				.73
750	250	Q17-105X				1.09
1000		Q11-108	PQ11-108	RQ11-108	M11-108	.73
1000		Q17-108				.73
1500		Q11-109				.73
1500		Q17-109				.73
2000		Q11-110	PQ11-110	RQ11-110	M11-110	.73
2500		Q13-111				.73
2500		Q17-111				.73
3000		Q11-112	PQ11-112	RQ11-112		.73
3000		Q17-112				.73
5000		Q11-114	PQ11-114	RQ11-114	M11-114	.73
5000		Q13-114				.73
5000		Q17-114				.73
5000		Q11-115	PQ11-115	RQ11-115		.73
7500		Q11-116	PQ11-116	RQ11-116	M11-116	.73
10K		Q13-116	PQ13-116	RQ13-116		.73
10K		Q14-116	PQ14-116	RQ14-116		.73
10K		Q17-116				.73
10K		Q13-118XX				1.09
15K	5K-10K	Q17-118X				1.09
15K	5K	Q17-118XX				1.09
15K	5K-10K	Q11-119	PQ11-119	RQ11-119		.73
20K		Q16-119				.73
20K		Q11-120	PQ11-120	RQ11-120	M11-120	.73
25K		Q13-120				.73
25K		Q14-120	PQ14-120	RQ14-120		.73
		Q11-121	PQ11-121	RQ11-121		.73
30K		Q11-122				.73
35K		Q11-123	PQ11-123	RQ11-123		.73
50K		Q13-123	PQ13-123	RQ13-123		.73
50K		Q14-123	PQ14-123	RQ14-123		.73
50K		Q11-125				.73
75K		Q11-128	PQ11-128	RQ11-128	M11-128	.73
100K		Q13-128	PQ13-128	RQ13-128	M13-128	.73
100K		Q11-228				.73
125K		Q13-328				.73
150K		Q17-328XX				1.09
150K	19K-38K	Q11-129	PQ11-129	RQ11-129		.73
200K		Q11-130	PQ11-130	RQ11-130	M11-130	.73
250K		Q13-130			M13-130	.73
250K		Q13-130X				1.09
250K	125K	Q18-130X				1.09
250K	60K	Q18-130XX				1.09
250K	60K-120K	Q11-131				.73
300K		Q13-132				.73
350K		Q17-132X				1.09
350K	35K	Q18-132X				1.09
350K	75K	Q11-133	PQ11-133	RQ11-133	M11-133	.73
500K		Q13-133	PQ13-133	RQ13-133	M13-133	.73
500K		Q13-133X				1.09
500K	125K	Q14-133				.73
500K		Q17-133				.73
500K		Q17-133X				1.09
500K	25K	Q18-133X				1.09
500K	50K	Q19-133X				1.09
500K	250K	Q18-133XX				1.09
500K	100K-200K	Q11-134				.73
600K		Q11-136				.73
750K		Q11-137	PQ11-137	RQ11-137	M11-137	.73
1.0 meg		Q13-137	PQ13-137	RQ13-137	M13-137	.73
1.0 meg		Q13-137X				1.09
1.0 meg	250K	Q14-137				.73
1.0 meg		Q17-37X				1.09
1.0 meg	35K	Q17-137XX				1.09
1.0 meg	50K-100K	Q18-137X				1.09
1.0 meg	100K	Q18-137XX				1.09
1.0 meg	250K-500K	Q19-137X				1.09
1.0 meg	500K	QVC-539X				1.09
1.5 meg		Q11-138	PQ11-138	RQ11-138		.73
1.5 meg	250K	Q13-138X				1.09
2.0 meg		Q11-139	PQ11-139	RQ11-139	M11-139	.73
2.0 meg		Q13-139	PQ13-139	RQ13-139	M13-139	.73
2.0 meg	500K	Q13-139X				1.09
2.0 meg	500K-1.0 meg	Q13-139XX				1.09
2.0 meg		Q17-139				.73
2.0 meg	150K	Q17-139X				1.09
2.0 meg	1.0 meg	Q18-139X				1.09
2.0 meg	250K-500K	Q18-139XX				1.09
2.0 meg	50K	Q19-139X				1.09
2.5 meg		Q11-239	PQ11-239	RQ11-239		.73
3.0 meg		Q11-140	PQ11-140	RQ11-140		.73
3.0 meg		Q13-140	PQ13-140	RQ13-140	M13-140	.73
3.0 meg		Q17-140			M17-140	.73
5.0 meg		Q11-141	PQ11-141	RQ11-141	M11-141	.73
5.0 meg		Q12-141				.73
5.0 meg		Q13-141				.73
5.0 meg		Q17-141				.73
7.5 meg		Q11-142				.73
10.0 meg		Q11-143	PQ11-143	RQ11-143	M11-143	.73

Switches For Above Controls — **Net Ea.**

Type 76-1 Switch SPST ..... $ .35
Type 76-2 Switch DPST ..... .35

I. R. C.

Type "W" 2-Watt Precision Wire-Wound Controls

Tight, uniform winding assures utmost accuracy, dependability and uniform resistance change. 1¼" diameter, 9/16" depth, full-round ¼" shaft 3" long.

Resistance in Ohms	Cat. No.	Resistance in Ohms	Cat. No.	Resistance in Ohms	Cat. No.	Resistance in Ohms	Cat. No.
2	W 2	20	W20	100	W100		
3	W 3	25	W25	200	W200	2,000	W 2,000
5	W 5	30	W30	300	W300	3,000	W 3,000
6	W 6	40	W40	400	W400	4,000	W 4,000
8	W 8	50	W50	500	W500	5,000	W 5,000
10	W10	60	W60	750	W750	7,500	W 7,500
15	W15	75	W75	1,000	W1,000	10,000	W10,000

Center Tapped Types

10	W10X5	20	W20X10	30	W30X15	50	W50X25

All Type "W" Controls ..... **Net Each $ .73**
All Center Tapped Type "W" Controls ..... **Net Each $1.09**

Switches For Above Controls

Type	Cat. No.	Net Ea.	Type	Cat. No.	Net Ea.
S.P.S.T.	51	$ .35	4 Point	55	$ .44
D.P.S.T.	52	.44	S.P.D.T.—At Clockwise		
S.P.D.T.	53	.44	position.	56	.44
3-Point	54	.44	S.P.S.T. W/Dummy Lug.	57	.44

MALLORY

4-Watt Wire-Wound Potentiometers

Designed especially for low voltage TV, test equipment, industrial electrical applications. All are linear taper and have insulated shaft. Overall case diameter: 1⅝". Case depth: ⅝". Bushing: ⅜". Shafts are ¼" round, knurled screw driver slotted ⅜" long.

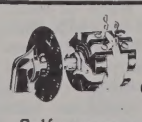
Resistance in Ohms	Cat. No.	Net Ea.	Resistance in Ohms	Cat. No.	Net Ea.
1	M1PK	$ .88	600	M600PK	.88
3	M3PK	.88	1,000	M1MPK	1.03
6	M6PK	.88	1,500	M1.5MPK	1.03
10	M10PK	.88	2,000	M2MPK	1.03
15	M15PK	.88	2,500	M2.5MPK	1.03
20	M20PK	.88	3,000	M3MPK	1.03
25	M25PK	.88	4,000	M4MPK	1.03
30	M30PK	.88	5,000	M5MPK	1.03
40	M40PK	.88	10,000	M10MPK	1.18
50	M50PK	.88	15,000	M15MPK	1.18
60	M60PK	.88	20,000	M20MPK	1.18
75	M75PK	.88	25,000	M25MPK	1.18
100	M100PK	.88	50,000	M50MPK	1.41
200	M200PK	.88	70,000	M70MPK	1.41
400	M400PK	.88	75,000	M75MPK	2.06
500	M500PK	.88	100,000	M100MPK	2.06

MALLORY 7-WATT

Wire-Wound Potentiometers

All are linear taper with grounded contact arm. Case diameter: 2⅝". Depth: ⅞". Shaft is ¼" screw driver slotted ⅜" long.

Resistance in Ohms	Cat. No.	Net Ea.	Resistance in Ohms	Cat. No.	Net Ea.
5,000	E5MP	$2.23	75,000	E75MP	$2.61
10,000	E10MP	2.38	100,000	E100MP	2.67
20,000	E20MP	2.46	125,000	E125MP	2.67
25,000	E25MP	2.49	150,000	E150MP	2.73
50,000	E50MP	2.52			



CLAROSTAT

CONSTANT IMPEDANCE CONTROLS

Self-compensating volume controls known as L-pads and T-pads for use in sound systems. Rated at 2½ watts DC, but will handle up to 10 watt audio. Continuous range from 0.5 to 30 decibels attenuation in 90° rotation. Last 10° affords infinite attenuation. With Clarostat constant-impedance L-pads and T-pads the input and output impedances of associated circuits can be kept within the limits of a constant required value.

CIT Cat. No.	CIL Cat. No.	Res. Ohms	CIT Cat. No.	CIL Cat. No.	Res. Ohms
CIT-4	CIL-4	4	CIT-200	CIL-200	200
CIT-6	CIL-6	6	CIT-250	CIL-250	250
CIT-8	CIL-8	8	CIT-500	CIL-500	500
CIT-15	CIL-15	15	CIT-600	CIL-600	600
CIT-50	CIL-50	50	CIT-1,000	CIL-1,000	1,000
CIT-100	CIL-100	100	CIT-2,000	CIL-2,000	2,000

CIL Pads ..... **Net Each $2.20**
CIT Pads ..... **Net Each $2.50**

CLAROSTAT

SERIES 43, 58 AND 10 WIRE WOUND CONTROLS

These are "Pick-A-Shaft" controls, which take any one of the 12 shafts listed, including High Voltage Coupler and insulated shaft. Your choice of any one of the 12 shafts listed (this does not include insulated shaft) with each control. Tolerances of these contrlos are in accordance with RETMA standards. Overall resistance tolerance of plus/minus 10% for all values. All controls are linear. Available with factory-assembled shafts at no extra charge, by omitting the prefix "A" from the Catalog Number and designating the type of shaft desired when ordering. Example: 43-500 with FKS-¼ shaft, or 43S-10K with FS-3 shaft and SPST switch.

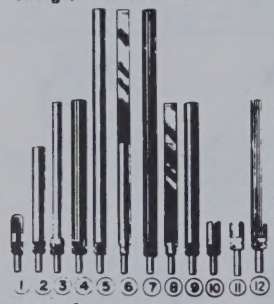
TYPE 43 CONTROLS

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms	Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A 43-5	A 43S-5	5	A 43-400	A 43S-400	400
A 43-10	A 43S-10	10	A 43-500	A 43S-500	500
A 43-20	A 43S-20	20	A 43-750	A 43S-750	750
A 43-25	A 43S-25	25	A 43-1,000	A 43S-1,000	1,000
A 43-30	A 43S-30	30	A 43-1,500	A 43S-1,500	1,500
A 43-40	A 43S-40	40	A 43-2,000	A 43S-2,000	2,000
A 43-50	A 43S-50	50	A 43-2,500	A 43S-2,500	2,500
A 43-75	A 43S-75	75	A 43-3,000	A 43S-3,000	3,000
A 43-100	A 43S-100	100	A 43-4,000	A 43S-4,000	4,000
A 43-150	A 43S-150	150	A 43-5,000	A 43S-5,000	5,000
A 43-200	A 43S-200	200	A 43-7,500	A 43S-7,500	7,500
A 43-300	A 43S-300	300	A 43-10K	A 43S-10K	10K

Net Each $.73 (Without Switch) — $1.18 (With (SPST Switch)

"PICK-A-SHAFTS"

For use with all Clarostat "Pick-A-Shaft" controls, either composition element, or wire wound. Your choice of shaft furnished, at no extra charge, with each "Pick-A-Shaft" control.



	Cat. No.	Description
(1)	SS-⅜" length	(Male) to take female fitting
(2)	RS-2	Round shaft, 2" long
(3)	RS-3/16	Round shaft 3/16" dia., 3" long
(4)	KSS-3	Knurled, split shaft, 3" long
(5)	RS-5	Round shaft, 5" long
(6)	FS-5	Flatted shaft, 5" long
(7)	KSS-5	Knurled, split shaft, 5" long
(8)	FS-3	Flatted shaft 3" long
(9)	RS-3	Round shaft, 3" long
(10)	DFS-½	Double flatted Philco Type, ½" long
(11)	FKS-¼	Fine knurled slotted shaft, ¼" long
(12)	KFS-3	Knurled flatted shaft, 3" long

Net Each ..... **$ .18**

HIGH VOLTAGE COUPLER

High-voltage shaft unit for operation up to 10K volts. Attaches to any Clarostat "Pick-A-Shaft" control, composition-element or wire-wound. Also available as a factory-attached unit on order. For example: M-58-S unit with factory-attached high voltage coupler, order as an 47-500K-S-HVC. Industrial Series 47- ½ meg.-S-HVC.

Cat. No.	
59-186	Spacer and Bushing Assembly
RN-3	Non-Metallic Shaft Round 3" long

Net Each ..... **$ .59**

CLAROSTAT

CONSTANT IMPEDANCE OUTPUT ATTENUATORS

Series "CIB" rated at 10 watts, but will handle up to 30 watts in audio circuit. Linear attenuation provided in 3 decibel steps up to 24db, then 30db followed by infinity. Equipped with dial plate and bar knob. One-hole mounting, ⅜" bushing diameter. 1" shaft. This control has been developed to meet the need for a constant-impedance attenuator capable of handling considerable power without measurable insertion loss. Recommended as an output level control for power amplifiers, or as an input attenuator for individual or for a group of speakers in a public address system.

Cat. No.	Res. Ohms	Cat. No.	Res. Ohms
CIB-6	6	CIB-200	200
CIB-8	8	CIB-250	250
CIB-15	15	CIB-500	500
CIB-50	50	CIB-600	600

SERIES CIB ..... **Net Each $6.37**

TYPE 58 CONTROLS

Without Switch Cat. No.	Res. Ohms	Net Ea.	With SPST Switch Cat. No.	Net Ea.
A 58-1	1	$ .73	A 58S-1	$1.18
A 58-2	2	.73	A 58S-2	1.18
A 58-4	4	.73	A 58S-4	1.18
A 58-6	6	.73	A 58S-6	1.18
A 58-10	10	.73	A 58S-10	1.18
A 58-15	15	.73	A 58S-15	1.18
A 58-20	20	.73	A 58S-20	1.18
A 58-25	25	.73	A 58S-25	1.18
A 58-30	30	.73	A 58S-30	1.18
A 58-40	40	.73	A 58S-40	1.18
A 58-50	50	.73	A 58S-50	1.18
A 58-60	60	.73	A 58S-60	1.18
A 58-75	75	.73	A 58S-75	1.18
A 58-100	100	.73	A 58S-100	1.18
A 58-200	200	.73	A 58S-200	1.18
A 58-300	300	.73	A 58S-300	1.18
A 58-400	400	.73	A 58S-400	1.18
A 58-500	500	.73	A 58S-500	1.18
A 58-750	750	.73	A 58S-750	1.18
A 58-1,000	1,000	.73	A 58S-1,000	1.18
A 58-1,500	1,500	.73	A 58S-1,500	1.18
A 58-2,000	2,000	.73	A 58S-2,000	1.18
A 58-2,500	2,500	.73	A 58S-2,500	1.18
A 58-3,000	3,000	.73	A 58S-3,000	1.18
A 58-4,000	4,000	.73	A 58S-4,000	1.18
A 58-5,000	5,000	.73	A 58S-5,000	1.18
A 58-7,500	7,500	.73	A 58S-7,500	1.18
A 58-10K	10K	.73	A 58S-10K	1.18
A 58-15K	15K	.94	A 58S-15K	1.38
A 58-20K	20K	.94	A 58S-20K	1.38
A 58-25K	25K	.94	A 58S-25K	1.38
A 58-30K	30K	1.33	A 58S-30K	1.76
A 58-40K	40K	1.33	A 58S-40K	1.76
A 58-50K	50K	1.33	A 58S-50K	1.76

TYPE 10 CONTROLS

Without Switch Cat. No.	Res. Ohms	Net Ea.	With SPST Switch Cat. No.	Net Ea.
A 10-1	1	$1.09	A 10S-1	$1.53
A 10-2	2	1.09	A 10S-2	1.53
A 10-4	4	1.09	A 10S-4	1.53
A 10-6	6	1.09	A 10S-6	1.53
A 10-10	10	1.09	A 10S-10	1.53
A 10-15	15	1.09	A 10S-15	1.53
A 10-20	20	1.09	A 10S-20	1.53
A 10-25	25	1.09	A 10S-25	1.53
A 10-30	30	1.09	A 10S-30	1.53
A 10-40	40	1.09	A 10S-40	1.53
A 10-50	50	1.09	A 10S-50	1.53
A 10-60	60	1.09	A 10S-60	1.53
A 10-75	75	1.09	A 10S-75	1.53
A 10-100	100	1.09	A 10S-100	1.53
A 10-200	200	1.09	A 10S-200	1.53
A 10-300	300	1.09	A 10S-300	1.53
A 10-400	400	1.09	A 10S-400	1.53
A 10-500	500	1.09	A 10S-500	1.53
A 10-750	750	1.09	A 10S-750	1.53
A 10-1,000	1,000	1.09	A 10S-1,000	1.53
A 10-1,500	1,500	1.09	A 10S-1,500	1.53
A 10-2,000	2,000	1.09	A 10S-2,000	1.53
A 10-2,500	2,500	1.09	A 10S-2,500	1.53
A 10-3,000	3,000	1.09	A 10S-3,000	1.53
A 10-4,000	4,000	1.09	A 10S-4,000	1.53
A 10-5,000	5,000	1.09	A 10S-5,000	1.53
A 10-7,500	7,500	1.09	A 10S-7,500	1.53
A 10-10K	10K	1.09	A 10S-10K	1.53
A 10-15K	15K	1.30	A 10S-15K	1.73
A 10-20K	20K	1.30	A 10S-20K	1.73
A 10-25K	25K	1.30	A 10S-25K	1.73
A 10-30K	30K	1.67	A 10S-30K	2.12
A 10-40K	40K	1.67	A 10S-40K	2.12
A 10-50K	50K	1.67	A 10S-50K	2.12
A 10-75K	75K	2.06	A 10S-75K	2.50
A 10-100K	100K	2.06	A 10S-100K	2.50

SUN RADIO for off-the-shelf delivery of Clarostat Controls

CENTRALAB

Just Snap Them Together!

NEW FASTATCH DUAL CONCENTRIC CONTROL SYSTEM

No tools needed . . .

- **Fastatch Duals are completely assembled, tested, and guaranteed front and rear units, not "put-together" controls. You don't do the manufacturer's work.**
- **No extra tools needed — the units *snap* together.**
- **Closely held tolerances, some more critical than original manufacturers' specifications, insure perfect fit and operation of front to rear, inner to outer shafts.**
- **Precision made front and rear controls are stocked separately. Instead of 400 units, just 126 cover all current and FUTURE dual concentric specifications.**
- **By checking popularity listings of Fastatch Duals, a small stock of controls for popular sets in your area can be maintained. With a minimum investment, you can have the correct dual control for any replacement needed.**

Max. Resist.	Taper or Tap	Front Unit	Rear Unit
300	C1	F1- 0	—
500	C1	F1- 1	—
750	C1	F1- 2	—
750	C5	F3- 2	—
750	500	F1- 3	—
1000	C1	F1- 4	R2- 4
1000	C5	F1- 5	R2- 5
1500	C1	F1- 6	R2- 6
1500	C5	F1- 7	R2- 7
1500	187 and 375	F1- 8	—
2000	C1	F1- 9	R2- 9
2000	C5	F1-10	R2-10
2000	1500	F1-11	—
2000	250 and 500	F3-11	—
2500	C1	F1-12	—
2500	C2	—	R2-13
2500	C3	—	R2-14
2500	C5	F1-15	—
2500	500	F1-16	—
2500	625	F1-17	—
3500	C5	—	R2-18
5000	C1	F1-19	R2-19
5000	C3	F1-20	—
5000	C5	F1-21	—
7500	C1	—	R2-22
10K	C1	F1-23	R2-23
10K	C2	F1-24	—
10K	C5	F1-25	R2-25
15K	5K and 10K	F1-26	—
25K	C1	F1-27	R2-27
35K	C1	F1-28	—
50K	C1	F1-29	R2-29
75K	C1	F1-30	R2-30
100K	C1	F1-31	R2-31
125K	C1	F1-32	R2-32
200K	C1	F1-33	R2-33
250K	C1	F1-34	R2-34
250K	C2	—	R2-35
250K	C4	—	R2-36
250K	C5	F1-37	R2-37
338K	66K	—	R2-38
350K	C2	F1-39	—
500K	C1	F1-40	R2-40
500K	C2	F1-41	R2-41
500K	C4	F1-42	R2-42
500K	100K	F1-44	R2-44
500K	150K	—	R2-45
500K	250K	—	R2-46
500K	50K	F1-47	R2-47
500K	150K	—	R2-48

CENTRALAB

COMPENTROL

The COMPENTROL is a volume control and special Printed Electronic Circuit network designed to better reproduce the apparent bass and treble response of amplifiers, radio, and television sets when volume is at low level. For use in radio sets (5 or more tube AC or DC), audio amplifiers, or phono combinations.

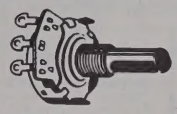
Resistance	Type	Cat. No.
½ meg.	Plain Type	C1-60
½ meg.	Switch Type	C1-60-S
1 meg.	Plain Type	C1-70
1 meg.	Switch Type	C1-70-S

Without Switch .....Net Each $2.50
With Switch .....Net Each $3.00

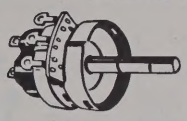
FASTATCH DUAL

Outer shaft is 3-5/16" long from mounting surface, with double-fluted mill . . . brass for quick cutting to proper length. Use for single or double flat or round shaft. Scores make cutting for single or double slot easy.

FRONT UNIT



FASTATCH DUAL — REAR UNIT



Distinctive blue aluminum inner shaft is 3¾" long from mounting surface. Easily cut to proper length. Diameter, 3/16" with .156" flat. Fits .187" or .202" flat shaft knob — spring adapter furnished for other knob types convert to switch type with type KB switches listed

Max. Resist.	Taper or Tap	Front Unit	Rear Unit
750K	C7	F1-49	—
850K	C1	F1-50	—
1 meg.	C1	F1-51	R2-51
1 meg.	C2	F1-52	R2-52
1 meg.	C3	F1-53	R2-53
1 meg.	C4	F1-54	R2-54
1 meg.	C7	F1-55	—
1 meg.	500K	—	R2-56
1 meg.	200K	—	R2-57
1 meg.	250K	—	R2-58
1 meg.	300K	F1-59	R2-59
1 meg.	500K	—	R2-60
1 meg.	100K	—	R2-61
1 meg.	300K	—	R2-62
1 meg.	200K and 500K	F1-63	—
1½ meg.	C1	F1-64	R2-64
1½ meg.	C7	F1-65	—
1½ meg.	250K and 500K	—	R2-66
2 megs.	C1	F1-67	R2-67
2 megs.	C2	F1-68	R2-68
2 megs.	C4	F1-69	—
2 megs.	C5	—	R2-70
2 megs.	C7	F1-71	—
2 megs.	1 meg.	—	R2-72
2 megs.	400K	F1-73	R2-73
2 megs.	200K	F1-74	R2-74
2 megs.	600K	—	R4-74
2 megs.	1 meg.	F1-75	R2-75
2½ megs.	C1	F1-76	R2-76
2½ megs.	C7	F1-77	R2-77
3 megs.	C1	F1-78	R2-78
3 megs.	C2	F1-79	R2-79
3 megs.	1½ meg.	—	R2-80
3 megs.	900K	F1-81	R2-81
4 megs.	C7	F1-82	—
6 megs.	C7	F1-83	R2-83
5 megs.	C3	—	R2-84

Type F or R.....Net Each $.88

FASTATCH SWITCHES

Type	Cat. No.	Net Ea.
SPST	KB-1	$ .29
DPST	KB-2	.35
SPDT	KB-3	.44
SPST 8 amp A.C	KB-4	.49

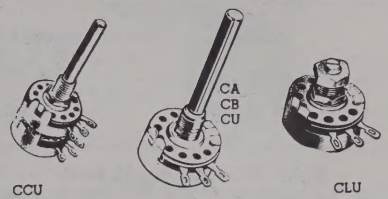
CENTRALAB

MODEL B16 RADIOHM

This tiny control is smaller than a dime, virtually a watch makers' production job. The noise level is exceptionally low. In the switch types, the switches are built entirely within the unit. ⅝" diameter without knob, 23/32" with knob. ¼" total thickness, including knob. Rating, 1/10 watt.

Ohms Max. Resistance	Taper	Cat. No. Plain	Cat. No. with Switch
500,000	C7	B16-118	B16-218
1 meg.	C2	B16-120	B16-220
2 megs.	C2	B16-122	B16-222
3 megs.	C2	B16-124	B16-224
5 megs.	C2	B16-128	B16-228

Type B16 (Without Switch)....Net Each $1.47
Type B16 (With Switch).....Net Each $2.36



OHMITE TYPE AB

Made by Allen-Bradley

Full 2-Watt Molded Composition Controls

A high quality two-watt control unit designed especially for uses where the utmost reliability is important. Molded resistor element construction, sealed in a metal enclosure to make each unit dust-proof and splash-proof.
(Tolerance is ± 10% except on types shown with asterisk which are ± 20%.) Mount in ⅜" holes with ⅜" bushing.

Resistance Rotation Characteristics (Taper)

Total Resistance — ±10% Except As Noted	LINEAR Type U 2" Shaft Stock No	LINEAR Type LU Locking Shaft Stock No	Type U Dual Unit Stock No	Type A Clockwise Log Stock No.	Type B Counterclock Log Stock No
50 Ohms	CU 5001	CLU 5001			
100 Ohms	CU 1011	CLU 1011			
250 Ohms	CU 2511	CLU 2511			
500 Ohms	CU 5011	CLU 5011			
1,000 Ohms	CU 1021	CLU 1021			
2,500 Ohms	CU 2521	CLU 2521			
5,000 Ohms	CU 5021	CLU 5021			
10,000 Ohms	CU 1031	CLU 1031	CCU 1031		CB 1031
25,000 Ohms	CU 2531	CLU 2531	CCU 2531		CB 2531
50,000 Ohms	CU 5031	CLU 5031	CCU 5031		CB 5031
.10 Meg.	CU 1041	CLU 1041	CCU 1041	CA 1041	
.25 Meg.	CU 2541	CLU 2541	CCU 2541	CA 2541	
.5 Meg.	CU 5041	CLU 5041	CCU 5041	CA 5041	
1.0 Meg. ±20%	CU 1052	CLU 1052	CCU 1052	CA 1052	
2.5 Meg. ±20%	CU 2552	CLU 2552		CA 2552	
5.0 Meg. ±20%	CU 5052	CLU 5052			

Stock No. CU Potentiometer ..... Net Each $1.91
Stock Nos. CA and CB Potentiometer ..... Net Each 2.20
Stock No. CLU Potentiometer ..... Net Each 2.50
Stock No. CCU Dual Potentiometer ..... Net Each 5.73
Stock No. CS-1, Switch only for above unit (supplied unmounted) ..... Net Each .65

CENTRALAB

MODEL "A" 1 WATT PATENTED NON-RUBBING CONTACT CONTROLS

Wall type resistor element provides one-third longer effective resistor length assuring low noise level, closer taper tolerance, double load carrying ability. Patented non-rubbing contact eliminates all friction between resistance element and contacting member assuring accuracy . . . the resistance strip CAN'T wear out.

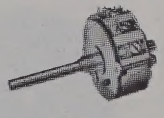
Ohms Max. Resistance	Taper	Cat. No.	Ohms Max. Resistance	Taper	Cat. No.
500	C1	A-100	500,000	C1	A-128
1,000	C1	A-101	500,000	C2	A-130
2,000	C1	A-102	1 meg.	C1	A-232
5,000	C1	A-105	1 meg.	C2	A-132
10,000	C1	A-108	2 megs.	C1	A-233
25,000	C1	A-115	2 megs.	C2	A-133
50,000	C1	A-118	3 megs.	C1	A-234
50,000	C2	A-119	3 megs.	C2	A-134
100,000	C1	A-122	5 megs.	C1	A 249
100,000	C2	A-123	5 megs.	C2	A 149
250,000	C1	A-227	10 megs.	C1	A-250
250,000	C2	A-127	10 megs.	C2	A-150

Model "A".....Net Each $.88

CLAROSTAT

SERIES 42-900
PRECISION POTENTIOMETERS

FOR YOUR PROTOTYPES



Clarostat Series 42-900 precision potentiometers have features such as: selection of either limited or continuous rotation by simple manipulation; gold plated bushings, terminals and screws; front and rear plate of green anodized aluminum; rear shaft extension for coupling to potentiometers, switch, servos etc. Wiring diagram on rear plate indicates terminal connections. This control is designed to meet the needs of your prototypes, laboratory testing, etc., where a high-grade precision potentiometer is required.

50 Thru 5,000 Ohms.....$14.00 Net Ea.
10,000 and 20,000 Ohms.....$16.00 Net Ea.
50,000 and 100,000 Ohms.....$19.00 Net Ea.

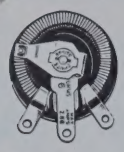
Specifications

Resistance Ohms	Terminal Linearity	Approx. Turns	Temp. Coeff.	Rotation Eff.	Rotation Elec.	Rotation Mech.
100,000	±0.25%	2300	.00002/°C	300±2°	320°±3°	320°±3°
50,000	±0.25%	1800	.00002/°C	300±2°	340°±3°	Continuous
20,000	±0.25%	950	.00002/°C	300±2°	340°±3°	Continuous
10,000	±0.25%	800	.00002/°C	300±2°	340°±3°	Continuous
5,000	±0.25%	600	.00002/°C	300±2°	340°±3°	Continuous
2,500	±0.25%	675	.00002/°C	300±2°	340°±3°	Continuous
1,000	±0.25%	525	.00002/°C	300±2°	340°±3°	Continuous
500	±0.50%	575	.00017/°C	300±2°	340°±3°	Continuous
100	±0.50%	285	.00017/°C	300±2°	340°±3°	Continuous
50	±0.50%	230	.00017/°C	300±2°	340°±3°	Continuous

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

OHMITE
VITREOUS ENAMEL RHEOSTATS



Construction is all ceramic and metal. All models have insulated shafts. The resistance wire is wound over a solid ceramic core. Each turn is a separate resistance step and is locked against shifting. Underwriters' Laboratories re-examination service listed.

MODEL "H", Series A — 25 WATT

Diameter 1 9/16" — Depth behind panel 1 3/4" — Shaft 1/4" diameter. Rotation 295° — Mounting for panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut — Non-turn lug requires 3/16" hole 1/2" below center of shaft — Stock No. 5150 Knob Supplied.

Stock No.	Total Ohms	Max. Amps.	Net Ea.	Stock No.	Total Ohms	Max. Amps.	Net Ea.
0140	1	5.000	$4.14	0152	125	.445	$3.66
0141	2	3.540	3.66	0153	175	.375	3.66
0142	3	2.880	3.66	0154	250	.316	3.66
0143	6	2.040	3.66	0155	350	.267	3.66
0144	8	1.770	3.66	0156	500	.222	3.66
0145	10	1.580	3.66	0157	750	.182	3.66
0146	15	1.290	3.66	0158	1,000	.155	4.14
0147	25	1.000	3.66	0159	1,500	.129	4.14
0148	35	.845	3.66	0160	2,500	.100	4.14
0149	50	.707	3.66	0161	3,500	.084	4.34
0150	75	.575	3.66	0162	5,000	.070	4.34
0151	100	.500	3.66				

MODEL "J", Series A — 50 WATT

Diameter 2 5/16" — Depth behind panel 1 3/4" — Shaft 1/4" Diameter. Rotation 300° — Mounting for panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut — Non-turn lug requires 3/16" hole 1/2" below center of shaft — Stock No. 5150 Knob Supplied.

Stock No.	Total Ohms	Max. Amps.	Net Ea.	Stock No.	Total Ohms	Max. Amps.	Net Ea.
0308	0.5	10.000	$4.60	0321	150	.575	$4.14
0309	1	7.070	4.60	0322	225	.470	4.14
0310	2	5.000	4.60	0323	300	.408	4.14
0311	4	3.530	4.14	0324	500	.316	4.14
0312	6	2.880	4.14	0325	800	.250	4.34
0313	8	2.500	4.14	0326	1,000	.224	4.34
0314	12	2.040	4.14	0327	1,600	.176	4.34
0315	16	1.760	4.14	0328	2,500	.141	4.34
0316	22	1.500	4.14	0329	3,500	.119	4.60
0317	35	1.190	4.14	0330	5,000	.100	4.60
0318	50	1.000	4.14	0331	8,000	.079	4.60
0319	80	.790	4.14	0332	10,000	.070	4.60
0320	125	.630	4.14				

MODEL "G" — 75 WATT

Diameter 2 3/4" — Depth behind panel 1 3/4" — Shaft 1/4" Diameter. Rotation 300° — Mounting for panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut — Non-turn lug requires 3/16" hole 1/2" below center of shaft. — Stock No. 5100 Knob Supplied.

Stock No.	Total Ohms	Max. Amps.	Net Ea.	Stock No.	Total Ohms	Max. Amps.	Net Ea.
1100	0.5	12.300	$6.22	1112	200	612	$5.71
1101	1	8.660	6.22	1113	300	500	5.71
1102	2	6.120	6.22	1114	400	433	5.71
1103	3	5.000	6.22	1115	500	388	5.71
1104	5	3.880	5.71	1116	750	316	6.22
1105	7.5	3.160	5.71	1117	1,000	274	6.22
1106	10	2.740	5.71	1118	1,500	224	6.22
1107	16	2.170	5.71	1119	2,000	194	6.22
1108	25	1.730	5.71	1120	2,500	173	6.22
1109	50	1.230	5.71	1121	5,000	123	6.63
1110	75	1.000	5.71	1122	7,500	100	7.12
1111	100	866	5.71	1123	10,000	087	7.12

MODEL "K", Series A — 100 WATT

Diameter 3 1/4" — Depth behind panel 1 1/4" — Shaft 1/4" Diameter. Rotation 300° — Mounting for panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut — Non-turn lug requires 3/16" hole 1/2" below center of shaft. — Stock No. 5100 Knob Supplied.

Stock No.	Total Ohms	Max. Amps.	Net Ea.	Stock No.	Total Ohms	Max. Amps.	Net Ea.
0440	0.5	14.100	$6.88	0452	200	707	$6.44
0441	1	10.000	6.88	0453	300	575	6.44
0442	2	7.070	6.88	0454	400	500	6.44
0443	3	5.750	6.88	0455	500	447	6.44
0444	5	4.470	6.88	0456	750	365	6.44
0445	7.5	3.650	6.44	0457	1,000	316	6.88
0446	10	3.160	6.44	0458	1,500	258	6.88
0447	16	2.500	6.44	0459	2,000	224	6.88
0448	25	2.000	6.44	0460	2,500	200	6.88
0449	50	1.410	6.44	0461	5,000	141	7.33
0450	75	1.150	6.44	0462	7,500	115	7.81
0451	100	1.000	6.44	0463	10,000	100	8.25

MODEL "L", Series A — 150 WATT

Diameter 4" — Depth behind panel 2" — Shaft 1/4" Diameter. Rotation 300° — Mounting for panels up to 1/4", 3/8"-32 Bushing and Hex. Nut or two 10-32 x 3/4" flat head screws, mounting centers 7/8" each side of center of shaft on line perpendicular to center terminal. — Stock No. 5100 Knob Supplied.

Stock No.	Total Ohms	Max. Amps.	Net Ea.	Stock No.	Total Ohms	Max. Amps.	Net Ea.
0524	0.5	17.300	$8.72	0537	150	1.000	$8.25
0525	1	12.300	8.72	0538	200	.865	8.25
0526	2	8.650	8.72	0539	250	.775	8.25
0527	3	7.070	8.72	0540	350	.655	8.25
0528	5	5.480	8.72	0541	500	.548	8.25
0529	7.5	4.470	8.72	0542	750	.447	8.72
0530	10	3.880	8.25	0543	1,250	.346	8.72
0531	15	3.163	8.25	0544	1,800	.288	9.18
0532	25	2.450	8.25	0545	2,250	.259	9.18
0533	35	2.070	8.25	0546	3,000	.224	9.18
0534	50	1.735	8.25	0547	4,500	182	9.63
0535	75	1.415	8.25	0548	7,500	141	10.09
0536	100	1.225	8.25	0549	10,000	122	11.01

MODEL "P" — 225 WATT

Diameter 5" — Depth behind panel 2 1/4" — Shaft 3/8" Diameter. Rotation 310° — Mounting for panels up to 1 1/4", two 1/4"-20 x 1 1/2" flat head screws, mounting centers 7/8" each side of center of shaft on center line of cross-bar. — Stock No. 5105 Knob Supplied. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net Ea.	Stock No.	Total Ohms	Max. Amps.	Net Ea.
1250	1	15.000	$11.42	1261	100	1.500	$11.42
1251	2	10.600	11.42	1262	150	1.220	11.42
1252	3	8.660	11.42	1263	200	1.060	11.42
1253	4	7.500	11.42	1264	300	866	11.42
1254	5	6.710	11.42	1265	400	.750	11.42
1255	7.5	5.490	11.42	1266	700	.567	11.42
1256	10	4.740	11.42	1267	900	.500	11.42
1257	15	3.870	11.42	1268	1,200	.433	11.42
1258	25	3.000	11.42	1269	1,500	.387	11.42
1259	50	2.120	11.42	1270	1,750	.358	11.42
1260	75	1.730	11.42	1271	2,500	.300	11.42

MODEL "N", Series A — 300 WATT

Diameter 6" — Depth behind panel 2 3/8" — Shaft 3/8" Diameter. Rotation 315° — Mounting for panels up to 1 1/2", two 1/4"-20 x 1 1/2" flat head screws, mounting centers 1 3/16" each side of center of shaft on center line of cross-bar. — Stock No. 5105 Knob Supplied. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net Ea.	Stock No.	Total Ohms	Max. Amps.	Net Ea.
0650	1	17.320	$12.39	0661	100	1.730	$12.39
0651	2	12.240	12.39	0662	150	1.410	12.39
0652	3	10.000	12.39	0663	200	1.220	12.39
0653	4	8.660	12.39	0664	300	1.000	12.39
0654	5	7.750	12.39	0665	400	.866	12.39
0655	7.5	6.320	12.39	0666	700	.655	12.39
0656	10	5.480	12.39	0667	900	.578	12.39
0657	15	4.470	12.39	0668	1,200	.500	12.39
0658	25	3.460	12.39	0669	1,500	.447	12.39
0659	50	2.450	12.39	0670	1,750	.414	12.39
0660	75	2.000	12.39	0671	2,500	.346	12.39

MODEL "R" — 500 WATT

Diameter 8" — Depth behind panel 2 1/8" — Shaft 3/8" Diameter. Rotation 325° — Mounting for panels up to 1 1/2", two 1/4"-20 x 1 1/2" flat head screws, mounting centers 1 1/2" each side of center of shaft on center line of cross-bar. — Stock No. 5105 Knob Supplied. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net Ea.	Stock No.	Total Ohms	Max. Amps.	Net Ea.
0849	1.0	22.300	$18.27	0872	50	3.160	$18.27
0850	1.5	18.200	18.27	0861	80	2.520	18.27
0851	2	15.800	18.27	0862	125	2.000	18.27
0852	2.5	14.100	18.27	0863	175	1.690	18.27
0853	3	12.900	18.27	0864	250	1.410	18.27
0854	4	11.200	18.27	0865	325	1.240	18.27
0855	5	10.000	18.27	0866	500	1.000	18.27
0856	8	7.900	18.27	0867	750	.817	18.27
0857	12.5	6.300	18.27	0868	1,000	.707	18.27
0858	16	5.600	18.27	0869	1,500	.577	18.27
0859	25	4.470	18.27	0870	2,000	.500	18.27
0860	40	3.540	18.27	0871	2,500	.447	18.27

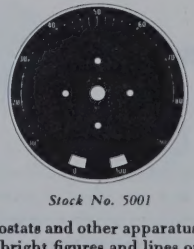
DIRECTION INDICATOR POTENTIOMETER
MODEL RB-2

The Model RB-2 Direction Indicator Potentiometer is a compact, low cost unit which is used in a simple 6 volt potentiometer circuit as a transmitting element, to indicate, remotely the position of a rotary beam antenna, or other device. The indicating meter can be any ordinary 0-1 M.A., 0-1.5 M.A. or 0-2 M.A. direct current milliammeter (with marked scale). The potentiometer is 2 5/16" in diameter and extends 1 3/8" behind the mounting surface. Single hole mounted by means of a 3/8-32 threaded bushing. Complete 360° rotation. Bulletin No. 128 gives complete details.

Stock No. RB-2, Potentiometer — $5.87 Net Ea.

RHEOSTAT DIALS

Stock No. 5000



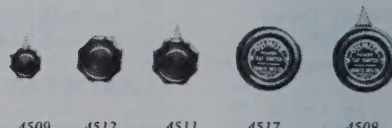
Stock No. 5001

Dials for use with Ohmite Rheostats and other apparatus, are handsomely finished with bright figures and lines on an etched black background. The divisions are marked from 0 to 100, thus indicating the approximate percentage of resistance of the rheostat in the circuit.

Stock No.	For Rheostat	Dial Diameter	Net Ea.
5000	H, J, G, K, L	2 3/16"	$ .19
5001	P, N, R, T, U	5 1/2"	1.54

OHMITE
BLACK BAKELITE KNOBS

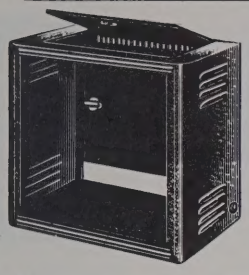
5150 *5103* *4516* *5116* *5102* *4515*



4509 *4512* *4511* *4517* *5105* *4508* *5104*

Stock No.	Description — Nos. 4500 through 4517 are Tap Switch Knobs. Nos. 5100 through 5118 are Rheostat Knobs.	Knob Dia.	Hole Dia.	Net Ea.
4508	Handwheel with Pointer	3 1/4"	3/8"	$1.37
4509	Finger-Grip with Pointer	1 5/8"	1/4"	.55
4510	Finger-Grip without Pointer	1 5/8"	1/4"	.40
4511	Finger-Grip with Pointer	2 3/8"	1/4"	.73
4512	Finger-Grip without Pointer	2 3/8"	1/4"	.65
4515	Bar Knob, 4 3/8" long		3/8"	2.74
4516	Bar Knob, 1 1/2" long		1/4"	.19
4517	Handwheel without Pointer	3 1/4"	3/8"	1.07
5102	Bar Knob, 2 1/4" long		1/4"	.30
5103	Bar Knob, 1 1/4" long		1/4"	.13
5104	Handwheel with Pointer	3 1/4"	3/8"	1.37
5105	Handwheel without Pointer	3 1/4"	3/8"	1.07
5118	Bar Knob, 1 1/2" long		1/4"	.30
5150	Finger-Grip Knob	1 1/2"	1/4"	.16

*For Model 608 Tap Switch only. Requires pin and tapped hole in shaft.

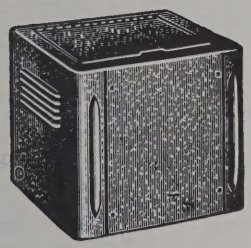


INSULINE
MULTI-USE METAL CABINETS

An ideal unit for sound systems, transmitters, receivers, test equipment, etc. Has rounded corners on front of cabinet. Trimmed with handsome chrome trim moulding. Equipped with hinge doors, and nickel-plated snap locks. Completely assembled, ready for use. Finished in Black or ultramarine Ripple Enamel. Black will be supplied unless ultramarine is specified. Accommodates RETMA, W.E., or Amateur panels.

No.	Size	Panel Size	Net Each
*3880	10⅜" x 21⅜" x 15¼"	8¾" x 19"	$11.76
*3885	12¼" x 21⅜" x 15¼"	10½" x 19"	13.23
*3881	14" x 21⅜" x 15¼"	12¼" x 19"	14.29
*3886	15⅝" x 21⅜" x 15¼"	14" x 19"	15.88
‡3882	19¼" x 21⅜" x 15¼"	17⅝" x 19"	18.78
‡*3883	28" x 21⅜" x 15¼"	26¼" x 19"	22.04
‡*3884	36⅜" x 21⅜" x 15¼"	35" x 19"	24.50

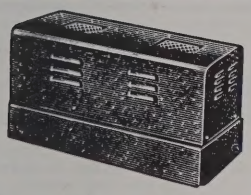
*Door on top. ‡Doors on top and rear. ‡*Door on rear panel.



INSULINE
DE LUXE HINGED STEEL CABINETS

The cabinets have rounded corners with specially designed Chrome plated "Air Gate" ventilators on sides; and vertical Chrome Plated Trim moulding on front. Modern grille type ventilators are provided on the back panels which also have an opening on the bottom to allow for leads, cable connections, etc. Bottoms have 4 embossed feet. Finished in neat ultramarine Ripple Enamel.

Cat. No.	H. W. D.	Panel Size	Net Each	Uses Insuline Chassis No.
3860	8" x 10" x 8"	8" x 8"	$ 4.07	4024
3861	8" x 12" x 8"	8" x 10"	4.58	4004
3862	8" x 14" x 8"	8" x 12"	4.85	4005
3863	12" x 20" x 12"	12" x 18"	10.45	4033



INSULINE
STANDARD AMPLIFIER FOUNDATION UNITS

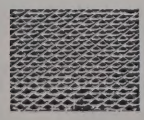
Top covers have rounded corners. The front, sides and back are equipped with louvre ventilators. The tops have raised screen openings for additional ventilation. Finished in beautiful ultramarine Ripple Enamel. Height of Chassis 3".

Cat. No.	Over-all Size	Net Each	Bottom Plate No.	Net Each
3980	5⅛" x 10" x 9"	$2.65	1677	$ .49
3981	8 " x 12" x 9"	3.92	1679	.83
3982	7 " x 17" x 9"	4.24	1681	.83
3983	10 " x 14" x 9"	4.57	1683	.90
3984	10 " x 17" x 9"	4.90	1685	1.05

INSULINE
DE LUXE SLOPING PANEL CABINETS

The top corners are rounded and trimmed with an attractive striped chrome trim. The sides of the cabinets have the beautiful "Air-Gate" Chrome ventilators. The front panel is removable so that the chassis can be attached to it and used as one unit. Beautifully finished in Ultramarine Ripple Enamel.

Cat No.	H. W. D.	Net Each	Uses Insuline Chassis No. Black Wrinkle Finish	Zinc or Cad. Plated Finish	Net Each
3990	8" x 8" x 8"	$4.78	4024	1526	$ .88
3991	8" x 10" x 8"	5.63	4004	1569	1.06
3992	8" x 14" x 8"	6.86	4007	1571	1.18
3993	12" x 18" x 12"	9.22	4033	1583	1.60

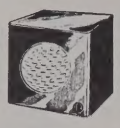


INSULINE
ALUMINUM MESH GRILLE

Expanded aluminum grille for use on custom built radios, phonographs, P. A. speakers, speaker cases, etc., results in unmuffled reproduction of sound. Permanent non-fading, non-tarnishing, gold finish. Non-dust catching. May be easily cut to desired size.

Cat. No.	Size	Net Each	Cat. No.	Size	Net Each
3947	12" x 18"	$2.08	3949	24" x 36"	$8.25
3948	18" x 24"	4.11			

Sold in lots of 6 each size.



INSULINE
COMPOSITE SPEAKER CABINET

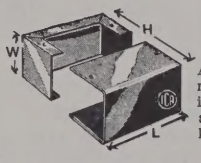
A neatly designed composite unit to house either a 4" or 5" speaker. Measures 7" w. x 4" d. x 7" h. Ultramarine ripple finished steel with embossed grille. Removable back plate has key 'ways for easy hanging.

Cat. No. 3988 **Net Each $3.26**

INSULINE
ALUMINUM . . . STEEL CABINETS

Popular utility cabinets now available in aluminum in gray hammertone finish. Excellent for amplifiers, monitors, input stages, meters, transceivers, etc. Removable front and back covers may be fastened to cabinet with self-tapping screws provided.

Cat. No.	Size W. L. H.	Net Each	Cat. No.	Size W. L. H.	Net Each
29810	4" x 4" x 2"	$1.00	29800	6" x 6" x 6"	$1.53
29811	4" x 5" x 3"	1.15	29801	9" x 6" x 5"	2.20
29812	4" x 6" x 5"	1.44			



INSULINE
"FLEXI-MOUNT" ALUMINUM CASES

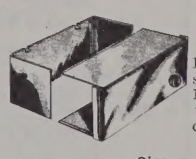
A two-piece case designed for maximum accessibility. Solves many problems demanding installation of numerous elements in limited space while assuring necessary shielding. Has wide application. Made of heavy aluminum — finished in gray hammertone.

Cat. No.	Dimensions W. L. H.	Net Each	Cat. No.	Dimensions W. L. H.	Net Each
29435	2½ x 2⅜ x 1⅝	$ .62	29442	5 x 6 x 4	$1.21
29436	2½ x 3½ x 1⅝	.62	29443	5 x 7 x 3	1.35
29437	2½ x 4 x 1⅝	.65	29447	5 x 17 x 4	3.38
29438	2½ x 4 x 2½	.85	29444	6 x 8 x 3½	1.97
29439	2½ x 5 x 2½	.88	29445	6 x 10 x 3½	2.44
29441	3 x 5½ x 2⅜	.94	29446	7 x 12 x 4	2.88
29440	4 x 5 x 3	.97			

INSULINE
SLIP COVER ALUMINUM BOXES

Suitable for a variety of electronic device housing needs. Slide cover permits easy accessibility to mounted parts; offers shielding and dust-proof protection. May be used for television strips; terminal barriers, special equipment, amplifier units, etc. Heavy aluminum in gray hammertone finish.

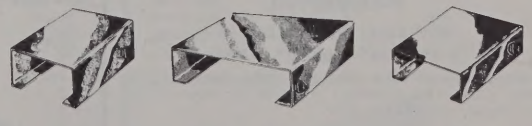
Cat. No.	Size W. L. H.	Net Each	Cat. No.	Size W. L. H.	Net Each
29130	3¼" x 13" x 2⅝"	$3.55	29140	3 " x 17" x 2⅝"	$3.67
29135	5⅛" x 13" x 2⅝"	3.84			



INSULINE
CHANNEL-LOCK ALUMINUM BOXES

Latest two-piece box with special "channel-lock" feature for snug and firm fit. Makes all mounting space easily accessible. Ideal for oscillators, amplifiers, etc. Easily assembled: merely tighten the two set screws provided. These sturdy boxes made of heavy aluminum in gray hammertone finish.

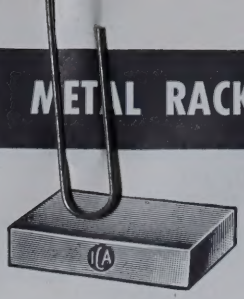
Cat. No.	Size W. L. H.	Net Each	Cat. No.	Size W. L. H.	Net Each
29400	4 x 2⅛ x 1⅝	$ .81	29415	3 x 4 x 5	$1.03
29405	5 x 2¼ x 2¼	1.10	29420	6 x 4 x 5	1.18
29410	5¼ x 3 x 2⅛	1.21	29425	10 x 4 x 2½	2.13



INSULINE
MINIATURE OPEN END ALUMINUM CHASSIS

Of first grade aluminum for less weight but long service. Base flange permits attaching of bottom plate or fastening down of chassis. Ideal where limited space is factor. Suitable for all small unit assemblies.

Cat. No.	W. L. H.	Net Ea.	Cat. No.	W. L. H.	Net Ea.
29076	1⅝ x 3⅛ x 1	$ .32	29083	4 x 4⅛ x 1	$ .38
29075	2⅜ x 2⅜ x 1½	.29	29084	4 x 5⅛ x 1	.41
29078	2⅜ x 4⅛ x 1½	.35	29085	4 x 6⅛ x 1	.44
29080	3 x 6⅛ x 1½	.41	29000	4⅛ x 8 x 1½	.88
29077	3½ x 4½ x 2	.35	29001	5 x 9½ x 1½	.97
29079	3⅜ x 4⅛ x 1½	.35	29081	5⅜ x 4⅞ x 1½	.44
29082	4 x 3⅛ x 1	.35			



INSULINE
ALUMINUM CHASSIS BASES

For receivers, transmitters, etc. Bases are folded over on bottom for additional strength and drilled to permit attaching of bottom plates. Solidly constructed. Made of first grade aluminum, electronically welded. Thickness: 16 gauge (.050).

Cat. No.	Size W.	L.	H.	Net Each	Cat. No.	Size W.	L.	H.	Net Each
29043	4	6	2	$1.00	29010	7	15	3	$2.22
29044	4	6	3	1.00	29011	7	17	3	1.79
29027	4	17	3	1.79	29012	8	12	3	1.68
29000*	4½	8	1½	.88	29013	8	17	2	1.85
29030	5	7	2	.91	29014	8	17	3	2.18
29047	5	7	3	1.03	29037	8½	15	3	2.25
29001*	5	9½	1½	.97	29015	10	12	3	1.85
29033	5	9½	2	.97	29016	10	14	3	2.35
29002	5	9½	3	1.15	29039	10	17	2	2.23
29048	5	10	3	1.18	29017	10	17	3	2.53
29003	5	13	3	1.23	29025	10	17	4	2.91
29004	5½	10	3	1.40	29018	10	23	3	3.25
29050	6	17	3	1.85	29019	11	17	2	2.32
29034	6	14	3	1.76	29020	11	17	3	2.94
29005	7	7	2	.97	29021	12	17	2	2.65
29006	7	9	2	1.06	29022	12	17	3	3.12
29007	7	11	2	1.18	29023	13	17	2	2.76
29008	7	12	3	1.38	29024	13	17	3	3.29
29009	7	13	2	1.23	29026	13	17	4	3.76

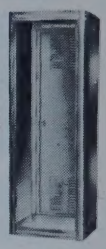
*Open ends.

INSULINE
CHASSIS BOTTOM PLATES

Designed to fit all Insuline Chassis Bases and amplifier units. Four raised bosses prevent marring or scratching.

Cat. No.	Size	Net Each	Cat. No.	Size	Net Each
8729	5 x 7	$ .69	8712	8 x 12	$1.06
8730	5 x 10	.70	8713	8 x 17	1.22
8702	5 x 13	.78	8721	8½ x 15	1.10
8725	5½ x 10	.72	8715	10 x 12	1.20
8723	7 x 7	.72	8716	10 x 14	1.10
8703	7 x 9	.75	8717	10 x 17	1.44
8704	7 x 11	.85	8718	10 x 23	1.71
8705	7 x 12	.90	8727	11 x 17	1.71
8706	7 x 13	1.06	8719	12 x 17	1.83
8707	7 x 15	1.06	8720	13 x 17	1.93
8708	7 x 17	1.11			

PAR-METAL
TYPE "A" ENCLOSED RELAY RACKS
DeLuxe Type — For 19" Wide Panels



Constructed of 1/16" thick cold-rolled steel, racks are shipped "knock-down" with necessary bolts for easy assembly. For panel mounting, angle irons are of 7/64" thick steel with accurately drilled holes tapped 10/32 thread on universal centers for all types of panels. All racks have quick detachable, new corner trims which are fastened to front with two studs. Slate gray ripple finish is standard. Black ripple enamel finish will be supplied without extra charge if so specified on your order. Trimmed at top and bottom with chrome finished trims.

Rounded Corner Type — For 19" Wide Panels

Similar to DeLuxe type, except vertical front corners are nicely rounded and top and bottom are trimmed with red-striped chrome finished mouldings.

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Net Price
ER-223	Rear only	43¼ x22x18"	36¾ x19"	17⅜"	19"	16¾"	$46.50
ER-225	Rear only	67¾ x22x18"	61¼ x19"	17⅜"	19"	16¾"	57.00
ER-227	Rear only	83½ x22x18"	77 x19"	17⅜"	19"	16¾"	69.00
FD-223	Front & Rear	43¼ x22x18"	36¾ x19"	19⅛"	19"	*16"	57.90
FD-225	Front & Rear	67¾ x22x18"	61¼ x19"	19⅛"	19"	*16"	72.00
FD-227	Front & Rear	83½ x22x18"	77 x19"	19⅛"	19"	*16"	90.00

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Depth	Clear Inside Width (Rear)	Clear Inside Width (Front)	Net Price
ER-213	Rear only	42 x22x16½"	36¾ x19"	15¼"	19"	17⅝"	$32.70
ER-215	Rear only	66½ x22x16½"	61¼ x19"	15¼"	19"	17⅝"	48.60
ER-217	Rear only	82¼ x22x16½"	77 x19"	15¼"	19"	17⅝"	58.50
FD-215	Front & Rear	66½ x22x16½"	61¼ x19"	*13½"	19"	19⅛"	62.52
FD-217	Front & Rear	82¼ x22x16½"	77 x19"	*13½"	19"	19⅛"	78.15

* clearance behind panel.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

PAR-METAL
⅛" Aluminum 19" Wide Rack Panels

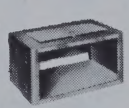
Slate grey and black ripple standard finishes. Light gray enamel available on order at 10% additional cost. (Please specify color when ordering.)

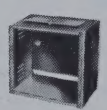
Panel Height	Cat. No.	Net Each
1¾"	6675	$ .73
3½"	6676	1.05
5¼"	6677	1.47
7"	6678	1.76
8¾"	6679	2.14
10½"	6680	2.70
12¼"	6681	3.14
14"	6682	3.61
15¾"	6683	4.03
17½"	6684	4.44
19¼"	6685	4.86
21"	6686	5.30

PAR-METAL
⅛" STEEL RACK PANELS
In 19", 24" and 30" Widths

Standard finish black or slate grey ripple enamel. (Please specify finish when ordering.) Available on order in light grey enamel; add 20% to price.

Panel Height	19" W. Cat. No.	Net Ea.	24" W. Cat. No.	Net Ea.	30" W. Cat. No.	Net Ea.
1¾"	6600	$.64	—		—	
3½"	6601	.73	6201	$1.11	6301	$1.52
5¼"	6602	.94	6202	1.38	6302	1.88
7"	6603	1.11	6203	1.61	6303	2.20
8¾"	6604	1.35	6204	1.96	6304	2.64
10½"	6605	1.55	6205	2.35	6305	2.23
12¼"	6606	1.85	6206	2.62	6306	3.82
14"	6607	2.11	6207	3.23	6307	4.35
15¾"	6608	2.41	6208	3.67	6308	4.85
17½"	6609	2.64	6209	4.02	6309	5.44
19¼"	6610	2.94	6210	4.49	6310	6.02
21"	6611	3.23	6211	4.94	6311	6.61





PAR-METAL
DESK PANEL CABINET RACKS
For 19" Wide Rack Panels
All Cabinets 21½" Long x 15" Deep

Streamlined styled. Front corners rounded and trimmed with moldings. Panels fit into a recess so that the edges are not exposed. May be used with any chassis up to 13" x 17" in size. Louvres provide ample ventilation. Black ripple enamel is standard. Slate grey is optional at the same price.

Units With Door In Top Only

Panel Space	Cat. No.	Over-all Height	Net Each
8¾"	DL128	10½"	$12.23
10½"	DL1210	12¼"	13.81
12¼"	DL1225	14"	14.84
14"	DL1413	15¾"	16.46

Units With Door in Top and on Rear Panel

Panel Space	Cat. No.	Over-all Height	Net Each
17½"	DL1713	19¼"	$18.81
26¼"	DL2613	28"	22.05
35	DL3513	36¾"	24.40

Shelves for Cabinet Racks

Designed to fit into the various enclosed racks listed. All shelves 1" high and finished in black ripple.

Cat no.	Shelf Size	Fit Rack No.	Net Ea.
ER2112	13x21-15/16"	ER213, ER215, ER217	$3.08
ER2212	15x21-15/16"	ER223, ER225, ER227	3.08
R2215	10-5/8x21-15/16"	FD225, FD227	3.08
R2128	12x21-3/16"	DL128, DL1225, DL1413 DL1713, DL2613, DL3513	2.49

PAR-METAL
CHANNEL RELAY RACKS FOR 19" WIDE PANELS

The ideal rack for transmitters and P.A. systems. Well constructed of 7/64" pressed steel. Vertical members and top cross brace securely welded together. Base on Types RR-195 and RR-197 extends both front and rear. Black ripple finish.

Panel Space	Cat. No.	Overall Size H. x W. x D.	Net Each
36¾"	RR193	38¼x20x18⅜"	$17.74
71¾"	RR195	73¼x20x20⅞"	20.58
77"	RR197	80⅜x20x21⅛"	33.07

PAR-METAL
TABLE TYPE RELAY RACKS FOR 19" WIDE PANELS

Extremely useful where heavy duty floor type rack is not required. Black ripple finish.

Panel Space	Cat. No.	Overall Size H. x W. x D.	Net Each
21"	TR2520	25x21x12"	$6.76
28"	TR3220	35x21x12"	7.76

Roller Trucks for Racks

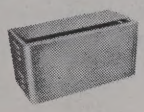
Overall size is wider than racks for better weight distribution. All models have rubber composition wheels. Slate grey ripple finish.

Cat. No.	Fit Rack No.	Net Each
RT410	DL2613, DL3513	$8.82
RT411	ER213, ER215, ER217	9.50
RT412	ER223, ER225, ER227	10.29
RT415	All 15¼" Deep Racks	11.17
RT418	FD225, FD227	12.05

PAR-METAL
HINGED STEEL CABINETS
DeLuxe Type

With rounded front corners, chrome finished moldings, modern handle at top and bottom, opening at rear for leads. Top door hinged at back with large opening for full access to interior. Grey ripple enamel finish.

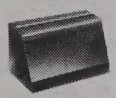
Cat. No.	H. x L. x D. Size	Fits Chassis	Net Each
CA 300	9 x 12⅛ x 8″	7 x 9 x 2″	$5.43
CA 301	9 x 16⅛ x 8″	7 x 13 x 2″	6.17
CA 302	10 x 17⅛ x 11″	10 x 14 x 3″	9.70
CA 303	10 x 20⅛ x 3″	8 x 17 x 3″	9.70
CA 304	13 x 20⅛ x 12″	10 x 17 x 3″	10.87



Rounded Corner Type

Similar in design to DeLuxe type. Slate grey ripple finish.

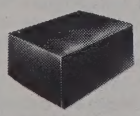
Cat. No.	Size H. x L. x D.	Fits Chassis	Net Each
CA200	8½ x 10⅛ x 8″	7 x 7 x 2″	$3.97
CA201	8½ x 12⅛ x 8″	7 x 9 x 2″	4.26
CA202	8½ x 16⅛ x 8″	7 x 13 x 2″	5.14
CA203	9½ x 17⅛ x 11″	10 x 14 x 3″	8.08
CA204	12½ x 20⅛ x 12″	10 x 17 x 3″	9.55



SLOPING FRONT CABINETS

Adaptable as instrument cases. Top corner rounded and chrome trimmed. Chassis may be mounted to front panel and removed as unit. Rear ventilated with openings for connections. Slate grey ripple finish.

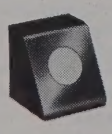
Cat. No.	Size H. x W. x D.	Fits Chassis	Net Each
SF500	8 x 8 x 8″	7 x 7 x 2″	$3.88
SF501	8 x 10 x 8″	7 x 3 x 2″	4.32
SF502	8 x 14 x 8″	7 x 13 x 2″	4.66
SF503	9 x 18 x 8″	7 x 17 x 3″	7.05
SF504	12 x 18 x 12″	10 x 17 x 3″	8.82



PAR-METAL
STEEL UTILITY CASES

Have removable flat tops and bottoms. Made of 20-gauge sheet steel with flanged edges and spot-welded corners. Black ripple finish.

Cat. No.	Over-all size	Net Each
MC442	4 x 4 x 2″	$ .79
MC453	4 x 5 x 3″	.91
MC596	5 x 9 x 6″	1.73
MC654	6 x 5 x 4″	1.17
MC666	6 x 6 x 6″	1.49
MC8101	8 x 10 x 10″	3.17
MC8107	8 x 10 x 7″	2.70
MC1128	11 x 12 x 8″	3.52
MC1576	15 x 7¾ x 6½″	3.08
MC1597	15 x 9 x 7″	3.82

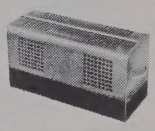


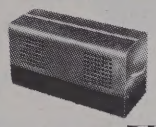
STEEL METER CASES

Cat. No	Hole Size	Meters	Net Each
SM12	2-1/4″	Single 2″	$ .97
SM32	2-1/4″	Three 2″	2.70
SM13	2-13/16″	Single 3″	.97
SM33	2-13/16″	Three 3″	2.70

STANDARD TYPE

PROFESSIONAL TYPE





DE LUXE TYPE WITH RECESSED PANEL

PAR-METAL
AMPLIFIER FOUNDATION CHASSIS

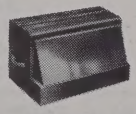
STANDARD TYPE features: Rounded corners effectively streamline the covers. Grill-type ventilation gives a modern appearance.

PROFESSIONAL TYPE features: Rounded corners on screen cover, chrome moldings and handles.

DE LUXE TYPE WITH RECESSED PANEL. The panel slopes slightly and is attached to chassis with screws so that it may be removed for drilling. The screen cover may be raised without disturbing panel.

Covers on all types are 6″ deep and are finished in slate grey and chassis in black ripple finish.

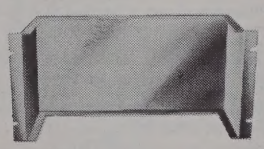
Chassis Size	Standard Type Cat. No.	Net Ea.	Prof. Type Cat. No.	Net Ea.	DeLuxe Type Cat. No.	Net Ea.
5x10x 3″	F510	$3.17	DF510	$4.15	FC510	$5.40
6x14x3″	F615	3.48	DF615	4.55	FC615	5.97
7x17x3″	F717	4.17	DF717	5.29	FC717	6.54
10x12x3″	F1012	4.17	DF1012	5.29	FC1012	6.54
10x17x3″	F1017	4.93	DF1017	6.02	FC1017	7.49
13x17x3″	F1317	5.88	DF1317	7.20	FC1317	8.52



SLOPING FRONT TYPE. Streamlined cover and sloping front panel will give your job the appearance of a commercial DeLuxe amplifier. Slate grey ripple enamel throughout with chrome molding and handles. Removable front panel prortrudes 3″ from face of screen cover, which is 6½″ high. Chassis supplied complete with bottom plate.

Chassis Size	Cat. No.	Net Each
10 x 12 x 3″	F10120	$6.76
10 x 17 x 3″	F10170	7.64
13 x 17 x 3″	F13170	8.67

PAR-METAL



Rack Mounting Chassis

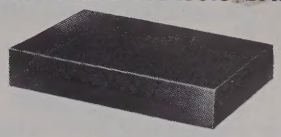
These chassis are suitable for installation in all Universal enclosed relay racks and any other racks which have provision for "mid-rail" mounting. May also be used on DeLuxe channel racks. Material is 1/16″ aluminum with corners welded for added rigidity. Etched finish on inside and outside. All chassis are 5¼″ deep; overall width is 19″; chassis width is 16⅞″.

Catalog No.	Height	Net Price
AC-430	1¾″	$2.25
AC-431	3½″	2.55
AC-432	5¼″	2.91
AC-433	7″	3.21
AC-434	8¾″	3.51
AC-435	10½″	3.87
AC-436	12¼″	4.26
AC-437	14″	4.71

ALL PRICES SUBJECT TO CHANGE

WITHOUT NOTICE

PAR-METAL
BLANK STEEL CHASSIS BASES



Standard Type

Stamped from one piece of cold rolled steel, these chassis have four solid sides with welded corners. Bottom edges are flanged in on four sides to provide additional reinforcement and are drilled for bottom plates listed below. The chassis are made from #20 gauge steel, except those marked with asterisk (*), which are stamped from 1/16″ steel for heavy-duty usage. Available in black ripple enamel or zinc-plated.

Cat. No. Black Ripple	Cat. No. Zinc Plated	Size	Net Price
B-4500	C-4500	5½x9½x1½″	$ .81
B-4507	C-4507	5x 7x2″	.90
B-4508	C-4508	5x10x3″	1.08
B-4509	C-4509	6x14x3″	1.35
B-4510	C-4510	7x 7x2″	.96
B-4511	C-4511	7x 9x2″	1.08
B-4512	C-4512	7x11x2″	1.17
B-4513	C-4513	7x13x2″	1.26
B-4514	C-4514	7x15x3″	1.53
B-4518	C-4518	4x17x3″	1.32
B-4515	C-4515	7x17x3″	1.62
B-4502	C-4502	8x12x3″	1.50
B-4531	C-4531	8x17x2″	1.62
B-4532	C-4532	8x17x3″	1.74
B-4525	C-4525	10x12x3″	1.59
B-4524	C-4524	10x14x3″	1.65
B-4528	C-4528	10x17x2″	1.71
B-4529	C-4529	10x17x4″	2.04
B-4526	C-4526	10x17x3″	1.77
B-4527	C-4527	10x23x3″	2.34
B-4533*	C-4533*	11x17x2″	2.40
B-4534*	C-4534*	11x17x3″	2.70
B-4516	C-4516	12x17x2″	1.92
B-4517	C-4517	12x17x3″	2.13
B-4530	C-4530	12x17x4″	2.55
B-4535*	C-4535*	13x17x2″	2.70
B-4536*	C-4536*	13x17x3″	3.15
B-4537*	C-4537*	13x17x4″	3.54
B-4540*	C-4540*	17x17x4″	4.05

Bottom Plates

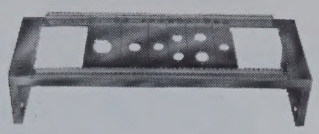
Bottom plates have holes to match standard type chassis listed above and also have pressed bumpers at the four corners.

Cat. No. Black Ripple	Cat. No. Zinc Plated	Size	Net Price
BP-4507	CP-4507	5x 7″	$ .39
BP-4500	CP-4500	5½x9½″	.42
BP-4508	CP-4508	5x10″	.42
BP-4509	CP-4509	6x14″	.60
BP-4510	CP-4510	7x 7″	.51
BP-4511	CP-4511	7x 9″	.54
BP-4512	CP-4512	7x11″	.63
BP-4513	CP-4513	7x13″	.66
BP-4514	CP-4514	7x15″	.70
BP-4518	CP-4518	4x17″	.57
BP-4515	CP-4515	7x17″	.72
BP-4502	CP-4502	8x12″	.75
BP-4531	CP-4531	8x17″	.75
BP-4525	CP-4525	10x12″	.75
BP-4524	CP-4524	10x14″	.75
BP-4528	CP-4528	10x17″	.96
BP-4527	CP-4527	10x23″	1.26
BP-4533	CP-4533	11x17″	.99
BP-4516	CP-4516	12x17″	1.08
BP-4535	CP-4535	13x17″	1.20
BP-4540	CP-4540	17x17″	1.65

PAR-METAL
CHASSIS MOUNTING BRACKETS

Cat. No.	Use With	Net Each
SB78	8″ Chassis	$ .82
SB710	10″ Chassis	1.05
SB711	11″ Chassis	1.17
SB713	13″ Chassis	1.38
SB717	17″ Chassis or Larger	2.99

SPEED PRODUCTS SPEED-CHASSIS



May be used for experimental circuits, temporary apparatus, permanent equipment, bench models or rack models. Chassis only; width, 5 in.; depth, 5¼ in.; length, 16⅞ in.; 20 ga. steel, heavily cadmium plated. 4 insulated tie-point strips and 1 grounded tie-point strip. Drilled and tapped at each end for Jones 8-point terminal strip No. 8-140. Each, net C-100 $6.00

Chassis kit consisting of one chassis as described above, with a handy assortment of plates. Kit, each, net... CK-200 $9.95

Chassis super-kit consisting of one chassis kit CK-200, one turret lug plate BP-31L, one panel PA-150, one pair rack brackets RB-200, and one dust cover DC-10. Complete kit, each, net..... CK-300 $18.95

Shipping Weights, each: C-100, 2¼ lbs.; CK-200, 3½ lbs., CK-300, 9 lbs.

PLATES

Single, 7-pin miniature socket mounting plate, 1⅛" x 4 3/16". Each, net ..... P-17S .20

Double, 7-pin miniature socket mounting plate, 1⅛" x 4 3/16". Each, net ..... P-17D .25

Single, 7-pin turret lug plate, recessed to take Vector type sockets, 1⅛" x 4 3/16". Each, net.... P-17ST .35

Double, 7-pin turret lug plate, recessed to take Vector type sockets, 1⅛" x 4 3/16". Each, net.... P-17DT .40

Triple, 7-pin turret lug plate, recessed to take Vector type sockets, 1⅛" x 4 3/16". Each, net..... P17TT .45

Single, 9-pin miniature socket mounting plate, 1⅝" x 4 3/16". Each, net ..... P-19S .23

Double, 9-pin miniature socket mounting plate, 1⅝" x 4 3/16". Each, net ..... P-19D .28

Single, 9-pin turret lug plate, recessed to take Vector type sockets, 1⅝" x 4 3/16". Each, net.... P-19ST .35

Double, 9-pin turret lug plate, recessed to take Vector type sockets, 1⅝" x 4 3/16". Each, net P-19DT .40

Triple, 9-pin turret lug plate, recessed to take Vector type sockets, 1⅝" x 4 3/16". Each, net.... P-19TT .45

Single, octal socket mounting plate, 1½" centers, 2⅛" x 4 3/16". Each, net ..... P-28AS .26

Same as P-19TT except for mounting two octal sockets, 1½" centers. Each, net..... P-28AD .31

Single, octal socket mounting plate, 1 5/16" centers, 2⅛" x 4 3/16". Each, net ..... P-28BS .26

Same as above except for mounting two octal sockets, 1 5/16" centers. Each, net ..... P-28BD .31

Universal transformer mounting plate (2 required), 1⅛" x 4 3/16". Per pair, net..... P-11T .35

Volume control mounting plate for one or two volume controls, (3 mounting holes.) Each, net..... P-11V .35

Blank plate, 1⅛" x 4 3/16". Each, net..... P-11B .15

Blank plate, 1⅝" x 4 3/16". Each, net..... P-21B .18

Blank plate, 2⅛" x 4 3/16". Each, net..... P-31B .21

The above mounting plates are all made of 20 ga. steel, heavily cadmium plated for easy soldering.

Turret lug plate, bakelite, 2⅛" x 4 3/16", 6 turret lugs along each long side. Each, net..... BP-31L .95

Shipping weights per 10 plates: P-17S, P-17D, P-11T, P-11B, ea. ½ lb.; P-17ST, P-17DT, P-19S, P-19D, P-28AD, P-28BD, P-21B, P-31L, ea. ¾ lb.; P-19ST, P-19DT, P-28AS, P-28BS, P-11V, P-31B, ea. 1 lb.

PANELS

5¼" x 19", .024 steel with formed edges, drilled to match tapped holes in rack brackets, finished with gray prime coat. Each, net..... P-150 1.50

Shipping weight, each: PA-150, 1¼ lbs. NOTE—1 pair RB-200 required, must be ordered separately.

RACK BRACKETS

Designed for mounting chassis in standard rack (2 required). Per pair, net..... RB-200 1.00

Same as above except for mounting two chassis together. Per pair, net..... RB-400 1.50

Shipping weights, per pair: RB-200, ½ lb.; RB-400, ¾ lb.

DUST COVERS

Dust cover, gray hammertone finish, with suitable bracket for mounting over chassis. Each, net DC-10 5.00

Shipping weight, each: DC-10, 4 lbs. NOTE—1 pair RB-200 required, must be ordered separately.

The half-size Speed-Chassis accommodates small breadboards where the additional length of the full-size model is not needed.

CHASSIS: Chassis only, 5" wide, 5¼" deep, 8 7/16" long; 20 ga. cad. pl. steel, 4 insulated tie-point strips, 1 grounded, ea..... C-50 6.00

Chassis Kit plus assortment of plates. Ea. Kit.... CK-75 9.95

Prices and designations for individual plates, panels, rack brackets, dust covers and power supplies are the same as shown for the full-size Speed-Chassis.

Chassis Supporting Angles

Where heavy weights are encountered in chassis construction, the Bud Chassis Supporting Angles will distribute the weight on the sides of the racks to relieve the panel. The angles are made in two sizes from steel ⅛" thick and are finished in black enamel only. The drawing shown around the chassis supporting angles in the picture which accompanies this is intended to show the manner in which the chassis will be supported by these angles. Sold in pairs only.

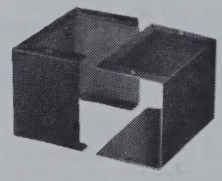
Catalog No.	Length	Net Ea
SA-1349	14½"	$1.71
SA-1350	12"	1.62

Chassis Mounting Brackets

Mounting brackets are essential to insure proper support of chassis. These brackets are formed of heavy gauge steel cut away at the bottom to provide chassis clearance so that the chassis can be mounted flush against the panel. Finished in black enamel only. Chassis mounting bracket Nos. MB-450 and MB-451 are designed for a chassis height of 4". These units are sold in pairs only.

Catalog No.	H Height	D Depth	Net Ea.
MB-458	6½"	8"	$ .88
MB-448	6½"	10"	1.14
MB-459	6½"	11"	1.23
MB-449	6½"	12"	1.50
MB-460	6½"	13"	1.39
MB-450	8½"	10"	1.65
MB-451	8½"	13"	1.75

BUD METAL



Miniboxes

There are thousands of uses in the field of radio and electronics for these boxes. They are made of high quality aluminum. The design of the box permits installation of more components than would be possible in the more conventionally designed box of the same size. Construction is of the two piece type, each half forming three sides. The flange type construction assures adequate shielding. These units are available in either etched aluminum finish or grey hammertone finish.

Length	Width	Height	Grey Hammered Catalog No.	Net Ea.	Etched Catalog No.	Net Ea.
2¾"	2⅛"	1⅝"	CU-2100	$ .71	CU-3000	.59
3¼"	2⅛"	1⅝"	CU-2101	.71	CU-3001	.59
4"	2⅛"	1⅝"	CU-2102	.75	CU-3002	.62
4"	2¼"	2¼"	CU-2103	.94	CU-3003	.80
5"	2¼"	2¼"	CU-2104	.97	CU-3004	.86
5"	4"	3"	CU-2105	1.07	CU-3005	.95
5¼"	3"	2⅛"	CU-2106	1.04	CU-3006	.93
6"	5"	4"	CU-2107	1.66	CU-3007	1.18
7"	5"	3"	CU-2108	1.49	CU-3008	1.29
8"	6"	3½"	CU-2109	$2.17	CU-3009	1.94
10"	6"	3½"	CU-2110	2.69	CU-3010	2.13
12"	7"	4"	CU-2111	3.17	CU-3011	2.71
17"	5"	4"	CU-2112	3.72	CU-3012	3.15
10"	2"	1⅝"	CU-2113	1.29	CU-3013	1.22
12"	2½"	2¼"	CU-2114	1.46	CU-3014	1.19
4"	2"	2¾"	CU-2115	.90	CU-3015	.80
4¼"	2¼"	1½"	CU-2116	.94	CU-3016	.83
3¼"	2⅛"	1⅛"	CU-2117	.75	CU-3017	.64

Sloping Panel Utility Boxes

The sloping panel utility box offers a streamlined appearance and enough space to house conveniently a two or three miniature tube amplifier or gadget. A ⅜" flange around the rear opening of the cabinet provides convenient back cover mounting. Extremely compact, it will accommodate a Bud Miniature Aluminum Chassis. Finished in black wrinkle enamel only.

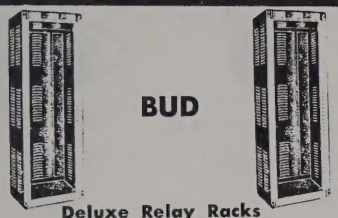
Catalog No.	Width	Use Chassis No.	Net Ea.
C-1602	4"	CB-1617	$1.18
C-1603	5"	CB-1618	1.27
C-1604	6"	CB-1619	1.37
C-1605	7"	CB-1620	1.47

Removable Top Chassis

Amateurs and experimental technicians, who make periodic changes, can do so with a minimum of waste by discarding the top that has been drilled and replacing it with a new one. These chassis are supplied in black wrinkle finish or electro-zinc plated.

Black Wrinkle Catalog No.	Zinc Plated Catalog No.	Depth	Height	Net Ea.
CB-196	CB-193	10"	3"	$3.40
CB-197	CB-194	10"	4"	3.76
CB-251	CB-210	13"	3"	3.51
CB-252	CB-211	13"	4"	3.38
REPLACEMENT CHASSIS TOPS				
RT-198	RT-195	10"	1/16"	1.29
RT-253	RT-212	13"	1/16"	1.60

METAL RACKS



Deluxe Relay Racks

These relay racks are made of 16 gauge steel with ⅛" panel mounting supports. The panel mounting supports are recessed so that no edges of the panel will be exposed.

The front and back of the top, the two sides and the door are well louvered to provide adequate ventilation. The door is hung on sturdy, loose joint hinges; it is held closed by two attractive aluminum die cast plunger type snap action catches. A streamlined appearance is achieved by the use of rounded corners and red lined chrome trim. This relay rack is shipped knocked down and complete with all necessary hardware for assembly. All standard 19" panels will fit these racks.

A SPECIAL FEATURE IS THE USE OF FOUR STURDY SUPPORTS IN THE BOTTOM, SO THAT CASTERS CAN BE FASTENED DIRECTLY TO THE BASE, THEREBY ACHIEVING READY MOBILITY.

Bud RC-7756 casters will fit this unit. The casters are not included in the price of the cabinet. These relay racks are supplied in either black or grey wrinkle finish, or light grey hammered finish. Use the suffix letter "B" for black wrinkle finish. Use suffix letter "G" for grey wrinkle finish. Use suffix letters "HG" for light grey hammered finish.

Catalog No.	Overall Height	Panel Space	Net Ea.
CR-1774	42 1/16"	36¾"	$33.65
CR-1771	47 5/16"	42"	38.53
CR-1772	66 9/16"	61¼"	51.01
CR-1773	82 5/16"	77"	60.25

Truck Casters

No. RC-7756 Heavy Duty type casters are recommended for our DeLuxe Relay Racks and where weights of 400 lbs. or less are to be distributed on four casters. No. RC-7757 casters are light duty and are recommended for lighter weight. The wheels are high grade, hard rubber composition and ball bearing type.

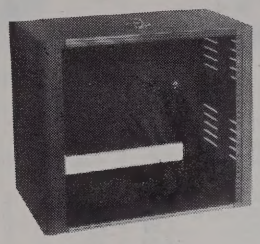
Catalog No.	Height	Net Ea.
RC-7756	2 5/8"	$ .88
RC-7757	2"	.88

Deluxe Streamlined Cabinets

These cabinets have a ½" vertical chrome strip at each side of the panel and are supplied in grey wrinkle enamel finish only.

Catalog No.	Panel Size	Cabinet Width	Net Ea.
C-1791	8" x 8"	10½"	$4.26
C-1781	8" x 10"	12½"	4.75
C-1782	8" x 12	14½"	5.10
C-1783	8" x 14"	16½"	6.36
C-1792	8" x 16"	18½"	6.68
C-1731	12" x 18"	20⅝"	10.55

BUD METAL



Deluxe Cabinet Racks

These cabinet racks are so made that a professional appearance is given. They are ideal for commercial broadcast stations, for amateur transmitters, for sound equipment or test equipment.

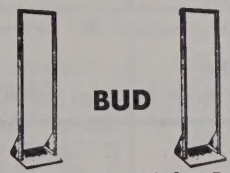
The five larger sizes have a hinged rear door, while the smaller sizes have the welded panel in the rear.

No other manufacturer has the wide variety of sizes that are included in the Bud line of deluxe cabinet racks.

Adequate ventilation is assured by means of louvered sides and a 2" opening in the bottom of the back, which extends the entire width of the cabinet. "No scratch" extended metal feet are embossed on the bottom to minimize marring of the table top or any other equipment that this is placed on.

Specify a suffix "B" when black wrinkle is desired, the suffix "G" when grey wrinkle is desired, or the suffix "HG" when light grey hammered is desired.

Catalog No.	Overall Height	Panel Space	Net Ea.
CR-1741	10 9/16"	8¾"	$12.35
CR-1740	12 5/16"	10½"	14.10
CR-1742	14 1/16"	12¼"	15.02
CR-1739	15 13/16"	14"	16.67
CR-1743	19 5/16"	17½"	19.76
CR-1727	22 13/16"	21"	21.43
CR-1744	28 1/16"	26¼"	23.16
CR-1728	33 5/16"	31½"	24.70
CR-1745	36 13/16"	35½"	25.63



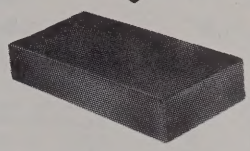
Telephone Type Relay Racks

Catalog Nos. RR-1263 and RR-1264 are made of ⅛" steel channels, three inches deep, with cross bars of the same thickness. The design of the base has been improved to incorporate a chassis type bottom, together with the usual side angles, making this rack exceptionally strong and stable. Holes are provided in the base to accommodate Bud RC-7756 casters. Depth 22". Finish black wrinkle only.

The RR-1265 is a heavy duty rack, suitable for broadcast stations and other commercial installations, where it is desired that exceptionally sturdy construction be utilized. The usual manner of installation is to bolt this unit to the floor.

To emphasize the heavy duty construction, it is necessary to realize that the base is made of two angles 4" x 6" x 5/16", 20⅜" long. The channels are 72½" long and made of 3" x 1⅜" iron channel. The two supporting cross bars are made of 5/16" x 2" steel. Depth 15". Finish black wrinkle only.

Catalog No.	Height	Panel Space	Net Ea.
RR-1263	35½"	31½"	$18.11
RR-1264	70½"	66½"	20.64
Catalog No.	Height	Panel Space	Net Ea.
RR-1265	72½"	66½"	$47.86



Aluminum Chassis

The construction and design of these chassis is exactly the same as that of our steel chassis bases. The aluminum chassis are welded on Government approved spot welders that are the same as those used in the welding of aluminum aircraft parts. As a result, you can depend on Bud Aluminum Chassis to do a perfect job and to stand up under all conditions.

Please note that the gauges shown in the table are aluminum gauges. These chassis are supplied in an etched aluminum finish.

Catalog No.	Depth	Width	Height	Gauge	Net Ea.
AC-430	4"	6"	3"	18	$1.05
AC-431	4"	6"	2"	18	1.05
AC-432	4"	17"	3"	16	1.88
AC-402	5"	7"	2"	18	.86
AC-429	5"	7"	3"	16	1.08
AC-403	5"	9½"	2"	18	1.02
AC-421	5"	9½"	3"	18	1.22
AC-404	5"	10"	3"	18	1.27
AC-422	5"	13"	3"	18	1.34
AC-433	6"	17"	3"	16	1.94
AC-405	7"	7"	2"	18	1.03
AC-406	7"	9"	2"	18	1.11
AC-407	7"	11"	2"	18	1.23
AC-408	7"	12"	3"	18	1.49
AC-409	7"	13"	2"	18	1.29
AC-411	7"	15"	3"	16	2.10
AC-423	7"	17"	3"	16	2.11
AC-424	8"	12"	3"	16	1.89
AC-425	8"	17"	2"	16	1.96
AC-412	8"	17"	3"	16	2.28
AC-413	10"	12"	3"	16	2.11
AC-414	10"	14"	3"	16	2.47
AC-415	10"	17"	2"	16	2.29
AC-416	10"	17"	3"	16	2.67
AC-426	11"	17"	2"	14	2.69
AC-417	11"	17"	3"	14	3.09
AC-418	12"	17"	3"	14	3.27
AC-419	13"	17"	2"	14	2.90
AC-420	13"	17"	3"	14	3.41
AC-427	10"	17"	4"	14	3.51
AC-428	13"	17"	4"	14	3.97

Desk Type Relay Racks

These racks are perfect for table mounting of low and medium powered transmitters, public address systems and other electronic instruments. The rack has strong chassis for mounting heavy components. These units are shipped knocked down with necessary hardware and are easy to assemble. Standard 19" wide panels can be used and the panels are set in recess so that no edges are exposed. Black wrinkle finish only.

Catalog No.	Panel Space	Net Ea.
RR-1248	21" x 19"	$6.96
RR-1249	28" x 19"	8.62

A

B

C

D

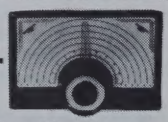
E

F

NATIONAL
Calibrated Dials

Universally recommended for all types of equipment. Established favorites for dependability, accuracy and appearance.

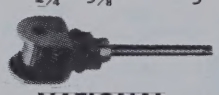
Cat. No.	Fig.	Size	Drive Ratio	Marking	Degree Rotation	Net Ea.
AM	A	3"	5 to 1	Blank	.....	$2.59
AM2	A	3"	5 to 1	0-100	180°	2.59
AM3	A	3"	5 to 1	100-0	180°	2.59
AM4	A	3"	5 to 1	150-0	270°	2.59
AM5	A	3"	5 to 1	200-0	360°	2.59
AM6	A	3"	5 to1	0-150	270°	2.59
BM1	B	3"	Fixed	0-100-0	180°	2.42
BM2	B	3"	Fixed	0-100	180°	2.42
BM5	B	3"	Fixed	200-0	360°	2.42
K	C	3½"	Odd Drive	0-100	180°	1.73
N	D	4"	Planetary 5 to 1	Blank	.....	5.18
N2	D	4"	Planetary 5 to 1	0-100	180°	5.18
N3	D	4"	Planetary 5 to 1	100-0	180°	5.18
N4	D	4"	Planetary 5 to 1	150-0	270°	5.18
N5	D	4"	Planetary 5 to 1	200-0	360°	5.18
0	E	3½"	Direct	0-100	180°	1.15
R	F	1⅝"	Direct	0-10	180°	.69



NATIONAL
Vernier Dials For Individual Calibration

Completely modern functional dials with black wrinkled finish escutcheons and clear plastic windows. All are provided with 0-100 logging scale in addition to blank scales. Pointers are clear plastic with pin-holes and centered hair-lines for accurate calibration. *Type ICN is illuminated.

Cat. No.	Size H.	Size W.	Blank Scales	Net Each
ACN	5"	7¼"	5	$3.80
*ICN	5"	7¼"	5	6.90
SCN	4 7/16"	6¼"	5	3.45
MCN	2¾"	3⅜"	3	3.11



NATIONAL
RAD Right Angle Drive

Right angle drive. A sturdy right angle drive with Die cast zinc Housing and Gears. Ideal for ganging condensers or potentiometers or other parts located in hard to get to locations on the chassis. **$4.31 Net Ea.**

NATIONAL
ODD Pinch Drive

Vernier pinch drive for O, L, or other plain dials. **$ .48 Net Ea.**

NATIONAL

AN Vernier Mechanism

A vernier mechanism ratio 5-1 has an insulated output shaft coupling for ¼" shafts. Drive Shaft fits 3/16" knob. **$2.07 Net Ea.**

NATIONAL

AVD Vernier Mechanism

Similar to AN-Output shaft coupling is non insulated. **$1.90 Net Ea.**

NATIONAL

RSL (fits ¼" shaft)

Rotor shaft lock for TMA, TMC and similar condensers. **$ .66 Net Ea.**

NATIONAL

ODL

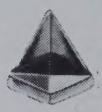
A locking device which clamps the rim of O, K, L and M Dials. Brass, nickel plated. **$ .38 Net Ea.**

NATIONAL

SB

A nickel plated brass bushing ½" dia. (Fits ¼" shaft). **$ .21 Net Ea.**

NATIONAL



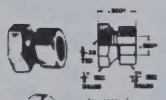
DP-1 Net Ea.

Chrome-plated dial pointer $ .21

DP-2

Diamond head dial pointer .15

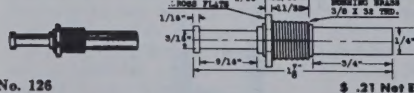
SMITH



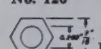
SHAFT LOCK — *Wrench Type*
Brass, Nickel Plated
No. 181 For ¼" Shaft **$ .21 Net Ea.**

SHAFT LOCK — *Thumb Type*
Brass, Nickel Plated
No. 182 For ¼" Shaft **$ .30 Net Ea.**

SMITH
PANEL BEARING ASSEMBLY
Plated Overall



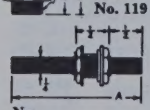
No. 126 **$ .21 Net Ea.**



BEARING FOR PANEL ASSEMBLY

Made of brass, nickel plated and fits in ⅜" diameter hole in panels up to ⅛" thick. Bearing is made to accommodate ¼" shafts. Overall length ⅝".

No. 119 **$ .15 Net Ea.**



PANEL BEARING ASSEMBLY
Nickel Plated Overall

Uses our standard No. 119 Panel Bearing.

No.	A	Net Ea.
148	3"	$ .29
149	6"	.39

10002

10021

10008

10065

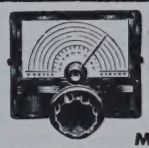
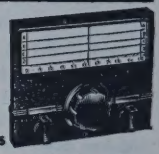
10018

MILLEN
DIALS AND KNOBS

Just a few of the many stock types of small dials and knobs are illustrated herewith. 10007 is 1⅜" diameter, 10009 is 2½" and 10008 is 3½"

	Net Ea.
No. 10002	$ .51
No. 10007	.69
No. 10008	1.14
No. 10009	.96
No. 10015	.66
No. 10018	.45
No. 10021	.18
No. 10065	.75

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

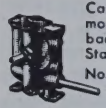



MILLEN
Multi Scale Dials

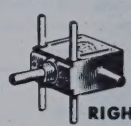
With 0-100 logging scales in addition to blank scales. Attractive black finish. Type 10035 is illuminated slide-rule type. Clear plastic full-view windows.

Cat. No.	Size H.	Size W.	Blank Scales	Net Each
10035	6½"	8½"	4	$6.75
10039	3¼"	4"	5	3.00

MILLEN
WORM DRIVE UNIT



Cast aluminum frame may be panel or base mounted. Spring loaded split gears to minimize back lash.
Standard ratio 16/1. Also in 48/1 on request.
No. 10000—(state ratio)..... **$7.50 Net Ea.**



MILLEN
RIGHT ANGLE DRIVE

Extremely compact, with provisions for many methods of mounting. Ideal for operating potentiometers, switches, etc., that must be located, for short leads, in remote parts of chassis.
No. 10012..... **$4.20 Net Ea.**

MILLEN
SHAFT LOCKS

In addition to the original No. 10060 and No. 10061 "DESIGNED FOR APPLICATION" shaft locks, we can also furnish such variations as the No. 10062 and No. 10063 for easy thumb operation as illustrated above. The No. 10061 instantly converts any plain "¼ shaft" volume control, condenser, etc. from "plain" to "shaft locked" type. Easy to mount in place of regular mounting nut.

	Net Ea.
No. 10060	$ .42
No. 10061	.42
No. 10062	.51
No. 10063	.59

MILLEN
DIAL LOCK

Compact, easy to mount, positive in action, does not alter dial setting in operation! Rotation of knob "A" depresses finger "B" and "C" without imparting any rotary motion to Dial. Single hole mounted.
No. 10050.....**$ .51 Net Ea.**

MILLEN
HIGH VOLTAGE INSULATED SHAFT EXTENSION

No. 10061 shaft locks and the No. 39023 insulated high voltage potentiometer extension mountings are available as a single integrated unit—the No. 39024. The proper shaft length is independent of the panel thickness. The standard shaft has provision for screw driver adjustment. Special shaft arrangements are available for industrial applications. Extension shaft and insulated coupling are molded as a single unit to provide accuracy of alignment and ease of installation.

	Net Ea.
No. 39023, non locking type	$1.35
No. 39024, locking type	1.65

G-C DIAL CABLES

The best dial cords available. All pre-stretched and chemically treated to prevent stretch and slipping. Nylon cord is made with a fiberglass core.

Cat. No.	Type	Cord Dia.	25-Ft. Spool Net ea.	50-Ft. Spool Net ea.	100-Ft. Spool Net ea.	500-Ft. Spool Net ea.	1000-Ft. Spool Net ea.
75A	Extra Thin Nylon	.025"	.82	1.56	2.91	8.42	16.17
75	Standard Thin Nylon	.028"	.82	1.56	2.91	8.42	16.17
74	Medium Nylon	.040"	.82	1.56	2.91	10.36	19.40
73	Heavy Nylon	.062"	1.12	1.91	3.24	12.94	24.58
76	Special Thin Bronze	.025"	.82	1.56	2.91	8.42	16.17
71	42 Strand Bronze	.040"	.97	1.77	3.24	11.64	22.64
70	Braided Bronze	.040"	.76	1.56	2.23	9.06	17.64

BUD SHAFT COUPLINGS

Insulated Flexible Couplings

Tandem operation of two or more units is readily accomplished through the use of these couplings. Direct shaft alignment is not essential and all couplers are made to fit ¼" shafts.

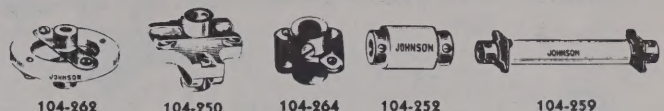
Catalog No.	Diameter	Height	Insulation	Net Ea.
FC-795	1 1/16"	11/16"	Ceramic	$ .47
FC-845	1 1/16"	5/8"	Bakelite	.32
FC-855	1½"	11/16"	Bakelite	.38

BUD — THE MARK OF PERFECTION

High Voltage Flexible Couplings

The special spring construction in these couplings permits a wide gap between shaft connections, freedom from back-lash and unusual flexibility. The springs are attached to glazed Steatite or Bakelite discs 1½" in diameter and 3/16" thick. The overall diameter of the finished coupling is 1 5/16". The coupling accommodates standard ¼" shaft.

Catalog No.	Insulation	Net Ea.
FC-614	Steatite	$ .73
FC-619	Bakelite	.73



104-262 104-250 104-264 104-252 104-259

JOHNSON SHAFT COUPLINGS

Flexible and rigid models for coupling shafts, ¼" to ¼", ¼" to ¾" and ¾" to ¾".

104-250 and -251 series steatite insulated couplings will adjust to both axial and angular shaft misalignment. Spring material is plated phosphor bronze.

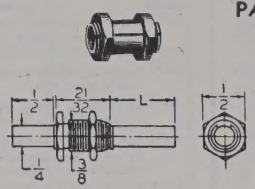
104-252 is a rigid coupling with glazed porcelain insulation.

104-258 is an all-metal, rigid coupling with locking nuts for friction fit to shafts.

104-259, -262 and -264 will adjust to minor angular shaft misalignment, -259 and -262 have steatite insulation, the -264 has bakelite.

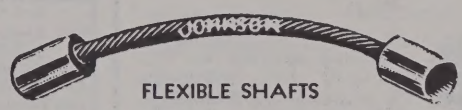
Cat. No.	DC Breakdown	Type	Overall Length	Maximum Diameter	Couples Shafts	Net Price
104-250	4000	Flexible	1 1/8"	1 11/32"	¼" to ¼"	$0.70
104-250-3	4000	Flexible	1 3/16"	1 11/32"	¼" to 3/8"	.90
104-251	8000	Flexible	1½"	2 7/32"	¾" to ¾"	1.00
104-251-2	8000	Flexible	1½"	2 7/32"	¼" to ¼"	1.00
104-251-3	8000	Flexible	1¼"	2 7/32"	¼" to ¾"	1.00
104-252	7000	Rigid	1¼"	11/16"	¼" to ¼"	.65
104-258	....	Rigid	¾"	9/16"	¼" to ¼"	.29
104-259	8000	Semi-Flex.	3 3/8"	1 11/32"	¼" to ¼"	1.30
104-262	5000	Semi-Flex.	7/8"	2"	¼" to ¼"	.90
104-264	750	Semi-Flex.	¾"	1 11/32"	¼" to ¼"	.52

PANEL BEARINGS



Number 115-255 is nickel plated brass for ¼" shaft and up to ⅛" panels. The 115-256 and 115-256-2 have 3" and 6" nickel plated brass shafts. Standard 8-24 nut furnished. Models with locking nut and special shaft lengths available on production quantity orders.

Cat. No.		L	Net Price
115-255	Panel Bearing Only		$0.17
115-256	Bearing and Shaft	3"	.30
115-256-2	Bearing and Shaft	6"	.40



FLEXIBLE SHAFTS

Phosphor bronze, non-rusting flexible shafts with ¼" nickel plated brass hubs. Permit out of line or up to 90 degrees angular control. Will withstand torque in either direction with minimum backlash.

Cat. No.		Net Price
115-253	3" Flexible Shaft	$0.40
115-254	6" Flexible Shaft	.55

ICA MINIATURE DIALS

Beautiful Chrome Silver dials with black etched numerals. Finger grip black knob. Only 1⅝" diameter. Fit ¼" shafts.

No.	Net Ea.
2164—10-0-180	$.63
2165—10-0-270	.63

ICA VERNIER DIAL MARKER

Complete with self-tapping screws for mounting on metal, wood, bakelite or brass panels.

No. 2190—	For 2¾"	—180° Dials.	Dealer Cost $.37
No. 2191—	For 4"	—325° Dials.	Dealer Cost .37
No. 2192—	For 4"	—180° Dials.	Dealer Cost .37

ICA CHROME SILVER DIALS

With Finger Grip Flange Knobs

Beautiful dial plates accurately Etcho-engraved with black numerals and calibrations.

No.	Size	Degrees	Calib.	Net Ea.
2170	2¾"	325	0-100	$1.50
2171	2¾"	180	0-100	1.50
2168	4"	325	0-100	2.00
2169	4"	180	0-100	2.00

ICA CHROME SILVER DIAL PLATES

Attractive grain satin finish. Black Etcho Engraving on Chrome Silver Background Plates.

No.	Degrees	Dia. Dial	Calib.	Net Ea.
2294	180	2"	0-100	$.58
2295	325	2"	0-100	.58
2296	180	3½"	0-100	.92
2297	325	3½"	0-100	.92
2298	180	4"	0-100	1.00
2299	325	4"	0-100	1.00

ICA BRASS BLACK SATIN FINISH DIAL PLATES

With Etched Silver Numerals

No.	Degrees	Dia. Dial	Calib.	Net Ea.
2230	325	3½"	0-100	$.47
2232	180	3½"	0-100	.47
2233	180	2"	100-0	.37
2234	325	2"	0-100	.37
2236	180	2"	0-100	.37

ICA CHROME SILVER DIAL PLATES

2¾" and 4" diameter. Two types, calibrated 180 degrees 0-100 and 325 degrees, 0-100.

No.	Degrees	Dia. Dial	Calib.	Net Ea.
2196	325	2¾"	0-100	$.85
2197	180	2¾"	0-100	.85
2194	325	4"	0-100	1.03
2195	180	4"	0-100	1.03

ICA ETCHED DIAL PLATES

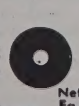
RECTANGULAR TYPES

Made of brass—finished in black with etched silver markings. Calibrated for 300 degree rotation. Marked 0 to 10. Will fit on ⅜" bushing. Size 2¾" x 1-11/16"

No.	Marking	Net Ea.
2244—	Record	.22
2245—	Microphone	.22
2246—	Gain	.22
2247—	Tone	.22
2248—	Plain (Calibrated but not worded)	.22

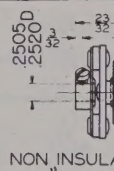
ICA INDICATING PLATES

Made of heavy brass with black satin background. Silvered "Etcho Gravured" numerals and lettering. ⅛" center mounting hole. 1⅛" Diameter.



No.	Degrees	Net Ea.
2259—Marked 1 to 6	180	$.25
2450—Marked 1 to 5 (Volume)	325	.27
2451—Marked 1 to 5 (Tone)	325	.27
2452—Marked 1 to 10	325	.27
2453—Marked Off-On—with arrow	325	.27

INSULATED TYPE "FC-46-S"



NON INSULATED TYPE "FNC-46-S"

109

HAMMARLUND COUPLINGS

FEATURES—The "FC-46-S" is an insulated flexible coupling designed to provide for mechanical ganging of shafts even though angularly misaligned. The smallest dimensions have been incorporated consistent with the rugged construction necessary for general service. A high degree of electrical isolation is achieved through the use of silicone treated steatite insulation. Flash-over voltage is approximately 5000 V. R.M.S. Brass hubs and spring temper phosphor bronze flexible arms are nickel plated. An exclusive and important feature of this coupling is its characteristic of uniform side-thrust through 360° of rotation. This eliminates tendency to vibrate at high speeds, minimizes bearing wear and assures accurate tracking.

The "FNC-46-S" is a non-insulated coupling for use where electrical continuity between shafts is required. The flexible arms are held securely to a nickel plated brass ring instead of an insulator.

		Net Ea.
CODE FC-46-S	Insulated flexible coupling	$ .75
CODE FNC-46-S	Non-insulated flexible coupling	.75

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

NATIONAL SHAFT COUPLINGS

TX-8

A non-flexible rigid coupling with steatite insulation. 1" diam. Fits 1/4" shaft.

$ .69 Net Ea.

TX-9

This small insulated flexible coupling provides high electrical efficiency when used to isolate circuits. Insulation is steatite. 1 5/8" diam. Fits 1/4" shaft. **$ .86 Net Ea.**

TX-10

A very compact insulated coupling free from backlash. Insulation is canvas bakelite. 1-1/16" diam. Fits 1/4" shaft.

$ .46 Net Ea.

TX-22 (Not illustrated)

A non-insulated coupling identical to TX-10 except of all metal construction. Makes good electrical connection between coupled shafts.

$ .46 Net Ea.

National NC

TX-19

A steatite insulated flexible coupling for 1/4" shafts. Conservatively rated at 5000 volts peak. Diameter 1 3/8", length 1". Length and flash-over voltage can be increased by turning collars outboard. **$1.44 Net Ea.**

TX-23

A deluxe insulated flexible coupling designed for coupling 1/4" shafts. Will handle a maximum radial misalignment of 1/16" also 2 degrees maximum angular misalignment. **$1.55 Net Ea.**

TX-24

Same as TX-23, shaft size 5/32". **$1.55 Net Ea.**

TX-25

Same as TX-23, non-insulated. **$1.55 Net Ea.**

(A) PL-5000 (B) PL-5002 (C) PL-5004 (E) PL-5008 (D) PL-5006 (F) PL-5010 (ENF) PL-5201 (CNF) PL-5014 (FNF) PL-5013

CARDWELL

Insulated Shaft Couplings

For isolating R.F. controls. Ceramic insulation (Alsimag No. 196). All flexible types have N.P. phosphor bronze springs, and heavy N.P. brass hubs, permanently swedged or spin rivetted into the springs. Two fillister head, cup point, case hardened steel set screws in each hub insure positive lock to shaft.

All rigid types have improved three-point-spider construction, carefully machined solid brass castings, and are absolutely rigid.

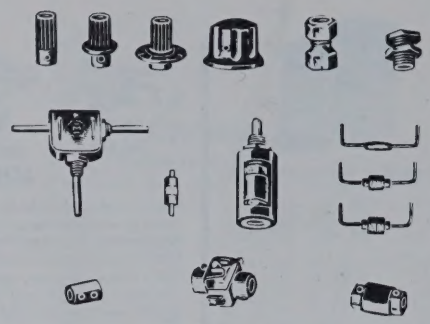
Flexible types C, D, E and F fit both 1/4" diameter shaft or a 3/8" shaft by removing bushing supplied.

INSULATED COUPLINGS—FLEXIBLE

Parts List No.	Type	Dimensions A (Width)	Dimensions B (Length)	Approx. Peak Flashover	To Fit Shaft Diameter	Net Ea.
PL-5000	A	1-9/32	3/4	3,700 V.	1/4	$ .54
PL-5002	B	1-9/32	1-3/32	7,000 V.	1/4	.80
PL-5004	C	2-5/8	2-3/32	13,500 V.	1/4 & 3/8	2.34
PL-5006	D	2-5/8	1-3/8	9,000 V.	1/4 & 3/8	2.34
PL-5008	E	2-1/16	1-3/4	10,000 V.	1/4 & 3/8	1.93
PL-5010	F	2-1/16	1-1/16	5,000 V.	1/4 & 3/8	1.93

INSULATED COUPLINGS—RIGID

Parts List No.	Type	Dimensions A (Width)	Dimensions B (Length)	Approx. Peak Flashover	To Fit Shaft Diameter	Net Ea.
PL-5014	CNF	2-1/4	2-1/16	12,000 V.	3/8	$3.39
PL-5201	ENF	1-3/8	1-13/32	10,000 V.	1/4	1.93
PL-5013	FNF	1-3/8	15/16	7,500 V.	1/4	1.83

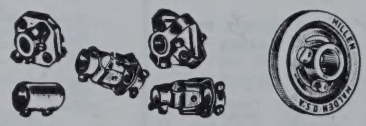


MILLEN

Miniaturized Components

DESIGNED for **APPLICATION** miniaturized components developed for use in our own equipment such as the 90901 Oscilloscope, are now available for separate sale. Many of these parts are similar in most details except size with their equivalents in our standard component parts group and in certain devices where complete miniaturization is not paramount, a combination of standard and miniature components may possibly be used to advantage. For convenience, we have also listed on this page the extremely small sized coil forms from our standard catalogue. Additional miniature and subminiature components are in process of design and will be announced shortly.

CODE	DESCRIPTION	NET PRICE
A006	Matches standard knobs in style. Black plastic with brass insert. For 1/8" shaft. Overall height 1/2". Diameter 3/4".	$ .42
A007	Same as A018 except for 3/8" diameter plastic dial with 5 index lines.	.42
A012	Right angle drive. 1/8" diameter shafts. Single hole mounting bushing 1/4"–32 diameter.	3.90
A018	1/4" diameter black plastic knob with brass insert for 1/8" shaft. Skirt diameter 3/8". Overall height 5/8". Unique design has screwdriver slot in top.	.39
A019	Similar to A018, but without flange.	.36
A061	Shaft lock for 1/8" diameter shaft. 1/4"–32 bushing. Nickle plated brass.	.39
A066	Shaft bearing for 1/8" diameter shafts. Nickle plated brass. Fits 17/64" diameter hole.	.36
E001	Steatite standoff or tie-point integral mounting eyelet. .205 overall diameter. Box of five.	.90
J300–500	Iron core RF choke 500 uh.	.42
J300–1000	Iron core RF choke 1000 uh.	.42
J300–2500	Iron core RF choke 2 1/2 mh.	.42
M003	Solid coupling for 1/8" diameter shaft. Nickle plated brass.	.30
M006	Universal joint style flexible coupling. Spring finger. Steatite insulation. Nickle plated brass for 1/8" diameter shafts.	.75
M008	Insulated coupling, with nickle plated brass inserts or 1/8" diameter shafts.	.48
M023	Insulated shaft extension for mounting sub miniature potentiometer with 1/4" diameter shafts and 1/4"–32 bushing.	1.35



MILLEN FLEXIBLE COUPLINGS

The No. 39000 series of Millen "Designed for Application" flexible coupling units include, in addition to improved versions of the conventional types, also such exclusive original designs as the No. 39001 insulated universal joint and the No. 39006 "slide-action" coupling (in both steatite and bakelite insulation).

The No. 39006 "slide-action" coupling permits longitudinal shaft motion, eccentric shaft motion and out-of-line operation, as well as angular drive without backlash.

The No. 39005 is similar to the No. 39001, but is not insulated and is designed for applications where relatively high torque is required. The steatite insulated No. 39001 has a special anti-backlash pivot and socket grip feature. All of the above illustrated units are for 1/4" shaft and are standard production type units. The No. 39016 incorporates features which have long been desired in a flexible coupling. No Back Lash—Higher Flexibility—Higher Breakdown Voltage—Smaller Diameter—Shorter Length—Higher Alignment Accuracy—Higher Resistance to Mechanicnl Shock—Solid Insulating Barrier Diaphragm—Molded as a Single Unit.

	Net Ea.
No. 39001	$ .48
No. 39002	.48
No. 39003	.24
No. 39005	.48
No. 39006	.48
No. 39016	.48

INSTRUMENT KNOBS

Style A Plain — Style C With Skirt — Style B With Pointer

Molded black bakelite instrument knobs with molded in brass insert for 1/4" shafts. **Style B** pointer knobs have white vinyl pointer. **Style C** skirt type have white indicator line. **Style D** same as style A except with protruding brass insert for mounting special dials and pointers.

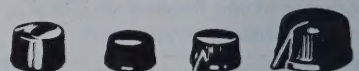
No.	Style	O.D.	Special	Height	Net Ea.
2200	A	1-1/8"		5/8"	$ .20
2201	A	1-3/8"		11/16"	.21
2202	A	1-5/8"		3/4"	.25
2203	A	2-3/8"		7/8"	.37
2204	B	1-1/8"	3/4" pointer	11/16"	.34
2205	B	1-3/8"	1-1/16" pointer	3/4"	.36
2206	B	1-5/8"	1-3/16" pointer	13/16"	.39
2207	B	2-3/8"	1-9/16" pointer	15/16"	.52
2208	C	1-1/8"	1-1/2" Skirt	13/16"	.36
2209	C	1-3/8"	1-3/4" Skirt	7/8"	.40
2210	C	1-5/8"	2-1/16" Skirt	29/32"	.46
2211	C	2-3/8"	3" Skirt	1-1/32"	.57
2212	D	1-1/8"		23/32"	.24
2213	D	1-3/8"		25/32"	.26
2214	D	1-5/8"		27/32"	.30
2215	D	2-3/8"		31/32"	.42

POINTER KNOBS

A B C

No.	Style	Type Hole	Color	Net Ea.
2220	A	1/4" Plain	Black	$ .10
2221	A	1/4" Plain	Walnut	.11
2222	A	1/4" Plain	Ivory	.12
2223	A	1/4" Brass Insert	Black	.15
2224	A	1/4" Brass Insert	Walnut	.16
2225	A	1/4" Brass Insert	Red	.17
2226	B	1/4" Plain	Black	.20
2227	B	1/4" Plain	Walnut	.20
2228	B	1/4" Brass Insert	Black	.23
2229	B	1/4" Brass Insert	Walnut	.24
2230	C	1/4" Plain	Black	.10
2231	C	1/4" Plain	Walnut	.11

CONTROL KNOBS



A B C D

E F G

Molded bakelite control knobs. Supplied with 1/4" molded hole; complete with set screw. *Recessed for locknut.

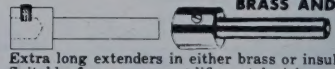
No.	Style	O.D.	Height	Color	Net Ea.
2240	A	3/4"	19/32"	Black	$ .10
2241	A	3/4"	19/32"	Walnut	.10
2242	B	11/16"	13/32"	Black	.09
2243	B	11/16"	13/32"	Walnut	.09
2244*	B	1"	1/2"	Black	.11
2245*	B	1"	1/2"	Walnut	.11
2246	C	11/16"	13/32"	Black	.09
2247	C	11/16"	13/32"	Walnut	.09
2248*	D	1"	1/2"	Black	.12
2249*	D	1"	1/2"	Walnut	.12
2250*	E	1-1/8"	9/16"	Black	.10
2251*	E	1-1/8"	9/16"	Walnut	.10
2252*	F	1-1/2"	11/16"	Black	.19
2253*	F	1-1/2"	11/16"	Walnut	.20
2254*	F	1-1/2"	11/16"	Ivory	.20
2258	G	7/8"	3/4"	Black	.11
2259	G	7/8"	3/4"	Walnut	.11

SMITH

BRASS AND INSULATED COUPLINGS

Avaliable in both brass and insulated material. Overall length 3/4". Set screws are provided in coupling for tightening to shaft.

No.	Type	O.D.	Material	Net Ea.
120	1/4"-1/4"	7/16"	Brass	$ .15
140	1/4"-1/4"	7/16"	Fibre	.15
131	3/8"-1/4"	1/2"	Brass	.15
141	3/8"-1/4"	1/2"	Fibre	.15
133	3/8"-3/8"	1/2"	Brass	.15
142	3/8"-3/8"	1/2"	Fibre	.15



BRASS AND INSULATED EXTENDERS

Extra long extenders in either brass or insulated material. Suitable for use on amplifiers, television receivers, radio receivers or whatever a 1/4" or 3/8" shaft extender is required.

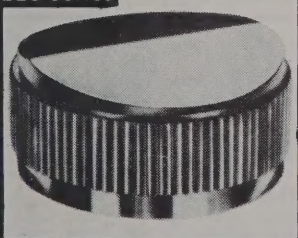
No.	Type	Material	Shaft Length	Overall Length	Net Ea.
150	1/4"-1/4"	Brass	1 3/8"	1 3/4"	$ .18
130	1/4"-1/4"	Fibre	1 3/8"	1 3/4"	.18
132	3/8"-1/4"	Brass	1 3/8"	1 3/4"	.18
134	3/8"-1/4"	Fibre	1 3/8"	1 3/4"	.18

RAYTHEON STANDARD CONTROL KNOBS

Developed for use on modern, high quality electrical and electronic equipment, Raytheon's line of Standard Control Knobs makes available to the design engineer a broad variety of basic knob types and sizes which combine rugged, functional design with modern, aesthetically-pleasing styling.

From drawing board to finished product, Raytheon control knobs represent the finest quality consistent with good engineering design. Injection-molded of black Tenite II (cellulose acetate butyrate) each knob is fitted with an anodized aluminum insert and utilizes two-plated Allen Head set screws, 90° apart, for dependable fastening to the control shaft. All standard knobs are for use with ¼" control shafts only.

Six standard knob types and five basic sizes provide for virtually all normal equipment requirements. Two standard surface finishes are available—a high gloss, "mirror" finish for use on commercial instruments and a uniform, non-reflecting "matte" finish (conforming to government specifications) for use on military equipment.

FIVE BASIC SIZES	SIX FUNCTIONAL TYPES: • ROUND SKIRTED • ROUND	DIAL • SKIRTED ROUND	• POINTER SKIRTED • POINTER	• CRANK
70 Series	WITHOUT SKIRT Mirror: 70-1-2 Matte: 70-1-2G WITH SKIRT Mirror: 70-2-2 Matte: 70-2-2G	Mirror: 70-3-2 Matte: 70-3-2G	WITHOUT SKIRT Mirror: 70-4-2 Matte: 70-4-2G WITH SKIRT Mirror: 70-5-2 Matte: 70-5-2G	—
90 Series	WITHOUT SKIRT Mirror: 90-1-2 Matte: 90-1-2G WITH SKIRT Mirror: 90-2-2 Matte: 90-2-2G	Mirror: 90-3-2 Matte: 90-3-2G	WITHOUT SKIRT Mirror: 90-4-2 Matte: 90-4-2G WITH SKIRT Mirror: 90-5-2 Matte: 90-5-2G	—
125 Series	WITHOUT SKIRT Mirror: 125-1-2 Matte: 125-1-2G WITH SKIRT Mirror: 125-2-2 Matte: 125-2-2G	Mirror: 125-3-2 Matte: 125-3-2G	—	Mirror: 125-6-2 Matte: 125-6-2G
175 Series	WITHOUT SKIRT Mirror: 175-1-2 Matte: 175-1-2G WITH SKIRT Mirror: 175-2-2 Matte: 175-2-2G	Mirror: 175-3-2 Matte: 175-3-2G	—	Mirror: 175-6-2 Matte: 175-6-2G
225 Series 	WITHOUT SKIRT Mirror: 225-1-2 Matte: 225-1-2G WITH SKIRT Mirror: 225-2-2 Matte: 225-2-2G	Mirror: 225-3-2 Matte: 225-3-2G	—	Mirror: 225-6-2 Matte: 225-6-2G

Standard Knobs—For Matte Finish, add Suffix "G" to Catalog No. and $.05 to Price.

Description	*Standard Knobs Cat. No.	Net Price
Round	70-1-1	.69
Round	70-1-2	.64
Skirted Round	70-2-1	.77
Skirted Round	70-2-2	.72
Dial Skirted Round	70-3-1	.85
Dial Skirted Round	70-3-2	.80
Pointer	70-4-1	.69
Pointer	70-4-2	.64
Skirted Pointer	70-5-1	.77
Skirted Pointer	70-5-2	.72
Round	90-1-2	.68
Skirted Round	90-2-2	.76
Dial Skirted Round	90-3-2	.84
Pointer	90-4-2	.72
Skirted Pointer	90-5-2	.80
Round	125-1-2	.72
Skirted Round	125-2-2	.80
Dial Skirted Round	125-3-2	.88
Crank	125-6-2	1.84
Round	175-1-2	.84
Skirted Round	175-2-2	.92
Dial Skirted Round	175-3-2	1.04
Crank	175-6-2	2.00
Round	225-1-2	.96
Skirted Round	225-2-2	1.04
Dial Skirted Round	225-3-2	1.16
Crank	225-6-2	2.08

NATIONAL KNOBS

HRS (gray or black)

The HRS series knobs are a popular easy to grip knob. They are molded of high quality plastic and have 1⅜" dia. chrome plated bevel skirts fit ¼" shafts available in the following scales: **Net Ea.**

HRS-3 0-10 through 300° **$ .58**

HRS-4 Single etched line **.58**

HRS-5 0-10 through 180° **.58**

HR (gray or black)

An HRS type knob without the chrome plated skirt but with a white dot for spotting relative control settings. **$ .35 Net Ea.**

HRB

Ideal for bandswitching or other applications where a switch is turned to several index positions, the new HRB lever knob has just the right feel — a bright zinc alloy die casting. **$ .52 Net Ea.**

HRP-P

Black bakelite knob 1¼" long and ½" wide. Equipped with pointer. Especially suitable for use on wafer and other rotary switches on laboratory equipment and the like. (Fits ¼" shaft). **$ .28 Net Ea.**

HRP

The type HRP knob has no pointer but is otherwise the same as the knob above. Recommended for uncalibrated or hard-tuning controls. (Fits ¼" shaft). **$ .21 Net Ea.**

HRM

Small knurled brass knob, satin chrome finish, arrow head black filled. Two 4-40 Allen set screws used. **$ .58 Net Ea.**

HRK

Black bakelite knob 2⅜" dial — extremely rugged. This is the knob used on National type O and type L dials. **$ .66 Net Ea.**

HRT (gray or black)

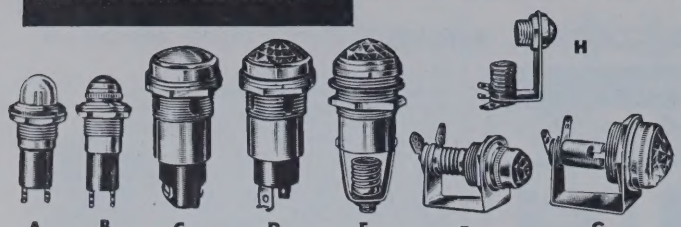
The HRT knob is 2⅛" in dia. and fits ¼" shafts. This knob has a chrome appearance circle and combined with the HRS series shown below gives the new look to panel layouts. **$ .86 Net Ea.**

HRT-M

This is a smaller version of the HRT. Available in choice of gray or black — is 1-7/16" in diameter. **$ .58 Net Ea.**

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.



DIALCO

PILOT LIGHT ASSEMBLIES

Widely used throughout the electronic and electrical industries for positive indication on test equipment and switchboards. All assemblies are **U. L. Approved** and are designed to fit the lamp base properly, to hold the lamp securely and to make positive electrical contact. Enclosed types are well insulated with heavy molded bakelite. We supply all listed types from stock. If you have need for special assemblies, please write to Sales Department, Sun Radio & Electronics Co., Inc., 650 Sixth Avenue, New York 11, N. Y. for a quotation.

Lens Color Code

Red — 1
*Green — 2
Amber — 3
*Blue — 4
Translucent White — 5
Yellow — 6
Clear — 7

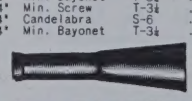
*Green and Blue lenses are not recommended for use with neon lamps: Always be sure to specify color when ordering. This is done by simply adding the proper number from the above code to the Catalog No. **(Example—95408-931 would indicate a red lens.)**

All assemblies for neon bulbs have built-in resistors for 110V or 220V operation.

Cat. No.	Fig.	Terminal	Mtg. Hole	Type of Cap	Back Proj.	Front Proj.	Type of Base	Type Bulb	Net
95408-93	A	Solder	11/16"	Short clear plastic	1 9/16"	1/2"	Min.Bay.-Neon	T-3¼ NE-51	$.89
91408-93	A	Solder	11/16"	Long clear plastic	1 7/16"	5/8"	Min.Bay.-Neon	T-3¼ NE-51	.89
951308-93	A	Screw	11/16"	Short clear plastic	1 9/16"	1/2"	Min.Bay.-Neon	T-3¼ NE-51	.89
911308-93	A	Screw	11/16"	Long clear plastic	1 7/16"	5/8"	Min.Bay.-Neon	T-3¼ NE-51	.89
52408-99	A	Solder	11/16"	Short multi-vue plastic	1 9/16"	1/2"	Min.Bay.-Neon	T-3¼ NE-51	.89
53408-99	A	Solder	11/16"	Long multi-vue plastic	1 7/16"	5/8"	Min.Bay.-Neon	T-3¼ NE-51	.89
521308-99	A	Screw	11/16"	Short multi-vue plastic	1 9/16"	1/2"	Min.Bay.-Neon	T-3¼ NE-51	.89
531308-99	A	Screw	11/16"	Long multi-vue plastic	1 7/16"	5/8"	Min.Bay.-Neon	T-3¼ NE-51	.89
81408-13	B	Solder	11/16"	Smooth glass	1 11/16"	1/2"	Min.Bay.-Neon	T-3¼ NE-51	.89
81408-43	B	Solder	11/16"	Faceted glass	1 11/16"	1/2"	Min.Bay.-Neon	T-3¼ NE-51	.89
811308-13	B	Screw	11/16"	Smooth glass	1 11/16"	1/2"	Min.Bay.-Neon	T-3¼ NE-51	.89
811308-43	B	Screw	11/16"	Faceted glass	1 11/16"	1/2"	Min.Bay.-Neon	T-3¼ NE-51	.89
95410-93	A	Solder	11/16"	Short clear plastic	1 9/16"	1/2"	Min.Bay.	T-3¼	.89
91410-93	A	Solder	11/16"	Long clear plastic	1 7/16"	5/8"	Min.Bay.	T-3¼	.89
951310-93	A	Screw	11/16"	Short clear plastic	1 9/16"	1/2"	Min.Bay.	T-3¼	.89
911310-93	A	Screw	11/16"	Long clear plastic	1 7/16"	5/8"	Min.Bay.	T-3¼	.89
52410-99	A	Solder	11/16"	Short multi-vue plastic	1 9/16"	1/2"	Min.Bay.	T-3¼	.89
53410-99	A	Solder	11/16"	Long multi-vue plastic	1 7/16"	5/8"	Min.Bay.	T-3¼	.89
521310-99	A	Screw	11/16"	Short multi-vue plastic	1 9/16"	1/2"	Min.Bay.	T-3¼	.89
531310-99	A	Screw	11/16"	Long multi-vue plastic	1 7/16"	1/2"	Min.Bay	T-3¼	.89
81410-11	B	Solder	11/16"	Smooth glass	1 11/16"	1/2"	Min.Bay	T-3¼	.89
81410-43	B	Solder	11/16"	Faceted glass	1 11/16"	1/2"	Min.Bay	T-3¼	.89
811310-11	B	Screw	11/16"	Smooth glass	1 11/16"	1/2"	Min.Bay.	T-3¼	.89
811310-43	B	Screw	11/16"	Faceted glass	1 11/16"	1/2"	Min.Bay.	T-3¼	.89
31914-11	C	Screw	1"	Smooth glass	1 3/8"	1/2"	Cand.-Neon	S-6	1.19
31914-43	C	Screw	1"	Faceted glass	1 3/8"	1/2"	Cand.Neon	S-6	1.19
31914-53	C	Screw	1"	Torpedo glass	1 3/8"	7/8"	Cand.-Neon	S-6	1.19
31914-83	C	Screw	1"	Dome plastic	1 3/8"	5/8"	Cand.-Neon	S-6	1.19
31914-93	C	Screw	1"	Stovepipe plastic	1 3/8"	1"	Cand.-Neon	S-6	1.19
31101-11	D	Solder	1"	Smooth glass	1 3/8"	1/2"	Candelapra	S-6	1.19
31101-43	D	Solder	1"	Faceted glass	1 3/8"	1/2"	Candelabra	S-6	1.19
31101-53	D	Solder	1"	Torpedo glass	1 3/8"	7/8"	Candelabra	S-6	1.19
31901-11	C	Screw	1"	Smooth glass	1 3/8"	1/2"	Candelabra	S-6	1.19
31901-43	C	Screw	1"	Faceted glass	1 3/8"	1/2"	Candelabra	S-6	1.19
31901-53	C	Screw	1"	Torpedo glass	1 3/8"	7/8"	Candelabra	S-6	1.19
31202-11	D	Solder	1"	Smooth glass	1 3/8"	1/2"	D.C. Bayonet	S-6	1.19
31202-43	D	Solder	1"	Faceted glass	1 3/8"	1/2"	D.C. Bayonet	S-6	1.19
31202-53	D	Solder	1"	Torpedo glass	1 3/8"	7/8"	D.C. Bayonet	S-6	1.19
31410-11	D	Solder	1"	Smooth glass	1 3/8"	1/2"	Min. Bayonet	T-3¼	1.19
31410-43	D	Solder	1"	Faceted glass	1 3/8"	1/2"	Min. Bayonet	T-3¼	1.19
31410-53	D	Solder	1"	Torpedo glass	1 3/8"	7/8"	Min. Bayonet	T-3¼	1.19
75-43	E	Solder	1"	Faceted glass	2 1/8"	1/2"	Candelabra	S-6	.83
175-43	E	Solder	1"	Faceted glass	1 3/4"	1/2"	Min. Screw	T-3¼	.81
275-43	E	Solder	1"	Faceted glass	1 7/8"	1/2"	Min. Bayonet	T-3¼	.81
375-43	E	Solder	1"	Faceted glass	2 1/32"	1/2"	S.C. Bayonet	G-4½	.83
810M-43	F	Solder	11/16"	Faceted glass	1 1/4"	1/2"	Min. Screw	T-3¼	.33
810M-99	F	Solder	11/16"	Short multi-vue plast.	1 1/4"	1/2"	Min. Screw	T-3¼	.33
8108-43	F	Solder	11/16"	Faceted glass	1 1/4"	1/2"	Min. Bayonet	T-3¼	.33
8108-99	F	Solder	11/16"	Short multi-vue plastic	1 1/4"	1/2"	Min. Bayonet	T-3¼	.33
910M-43	G	Solder	1"	Faceted glass	1 1/2"	1/2"	Min. Screw	T-3¼	.85
9108-43	G	Solder	1"	Faceted glass	1 1/2"	1/2"	Min. Bayonet	T-3¼	.85
510-43	H	Solder	7/16"	Faceted glass	1"	1/4"	Min. Screw	T-3¼	.23
610-43	H	Solder	7/16"	Faceted glass	1"	1/4"	Candelabra	S-6	.25
710-43	H	Solder	7/16"	Faceted glass	1"	1/4"	Min. Bayonet	T-3¼	.23

DIALCO

LAMP INSTALLER



Speeds up removal and installation of miniature and candelabra lamps. Made of high grade rubber.

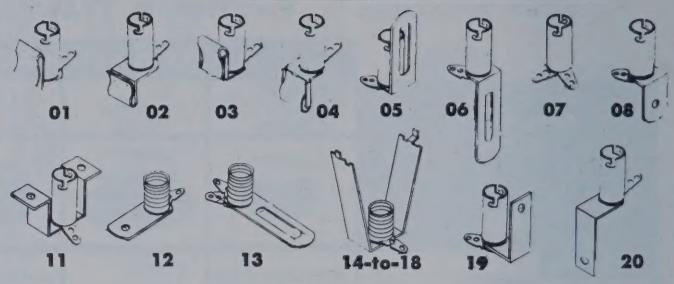
Dialco Lamp Installer.....Net Each $.26

G-C

Dial Lite Coloring

Long-lasting coloring for multi-colored dials, signals, lighting, decorative lighting, etc. Instant drying. Bright colors of Red, Green, Blue, Amber, Purple and Solvent. Earn extra money by selling colored dial lites.

Cat. No.		Net Ea.
66-6	Kit of 6 bottles	$ .70
66-5	Kit of 5 bottles, no purple	.58
66-1	Bottle of any color	.15
66-2	2-oz., any color	.38
66-16	16-oz., any color	1.61

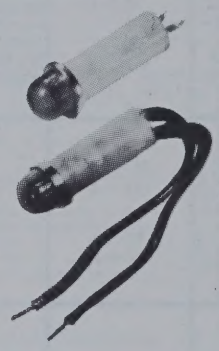


DIALCO

PILOT LIGHT SOCKETS

Cadmium plated brackets with tinned brass terminal lugs. Supplied with insulating washers. U.L. Approved.

Base Type	Cat. Nos.	Net Ea.
Miniature Screw	501 thru 520	$ .105
Candelabra Screw	601 thru 620	.115
Miniature Bayonet	701 thru 720	.115



INDUSTRIAL DEVICES

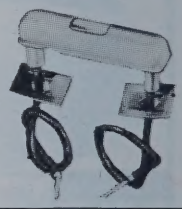
Omni-Glow Pilot Light

Small, economical, efficient, practical nylon-housed dial light assembly for use on instrument panels, switchboards, electrical and electronic apparatus. Mounts in ½" hole for any panel thickness up to 1⅛". Locks with speed nut. Operates from 75 to 150 volts. Built-in NE 51 Neon lamp for long and maintenance-free life. 12,000-hour minimum service. Furnished completed with lamp and speed nut. Depth behind panel 1¼"-½" in front of panel and ½" diameter.

Cat. No.	Lens Color	
1010-A1	Red	$.54 Net Each
1010-A2	Clear	
1010-A3	Amber	
1010-A4	Translucent White	

INDUSTRIAL DEVICES

Tiny Glow Pilot Light



Midget size only 1-11/16" x 7/16" x 3/8". Built-in NE-2 neon lamp provides over 25,000 hours of actual service. Operates from 75 to 250 volts A.C. or D.C. Shock and vibration proof. Requires less panel space than any other pilot light. Mounts with 3/8" brass studs and speed nuts. Finished in gleaming chrome plate. Furnished complete with lamp and speed nuts.

Cat. No. 300.....Net Ea. $.75

G.E. NEON GLOW LAMPS

Glow Red. Used as indicators and voltage regulators in test equipment, night lamps and stroboscopes. For use on 105-125V AC-DC, except as noted in table. Screw types have series resistor in base.

Cat. No.	Watts	Bulb	Base	AC	DC	Net Ea.	Boxes of 10
NE-2	1/25	T-2	Wire Term	65	90	$ .09	$ .80
NE-51	1/25	T-3¼	S.C. Bay. Min.	65	90	.12	1.08
NE-16*	¼	T-4½	D.C. Bay. Base	—	67	.63	5.67
NE-17	¼	T-4½	D.C. Bay. Base	55	75	.67	6.03
NE-45	¼	T-4½	Cand. Screw	65	90	.65	5.95
NE-48	¼	T-4½	D.C. Bay. Cand.	65	90	.53	4.77
NE-57**	¼	T-4½	Cand. Screw	55	70	.70	6.30
NE-30**	1	G-10	Med. Screw	60	85	.70	6.30
NE-32	1	G-10	D.C. Bay. Cand.	60	85	.65	5.95
NE-34†	2	S-14	Med. Screw	60	85	.75	6.75
NE-40†	3	S-14	Med. Screw	60	85	1.15	10.35

Designed to meet JAN-1A specifications for 991. Special marking—JCG-991 supplied at small extra charge.

***Center electrode connected to base shell.*

†*NE-30 & NE-40 are supplied with red-sprayed finish at an addition charge of 5c each.*

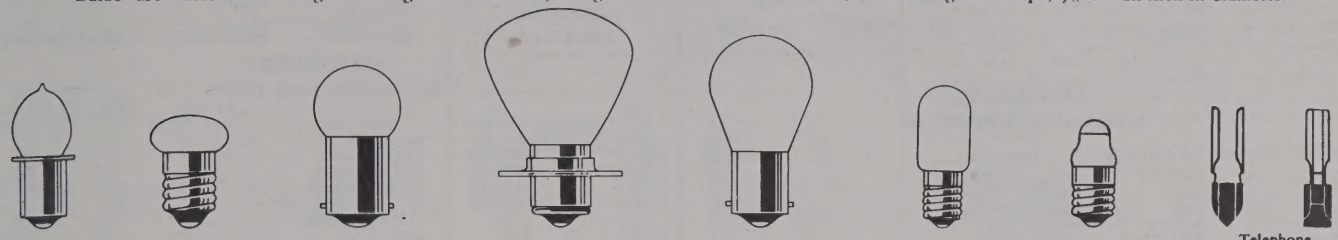
G.E. CANDELABRA LAMPS

For operation on AC or DC in clear glass envelopes. Widely used as indicator lamps. All are screwbase, except Cat. No. 6S6 and †C7 which are double contact candelabra bayonet base.

Cat. No.	Fig.	Volts	Watts	Net Ea.
S6	A	115	6	$ .19
6S6	A	115	6	.25
3S6	A	115	3	.30
10WS6	A	230	10	.45
C7	B	115	7	.17
†C7	B	115	10	.21

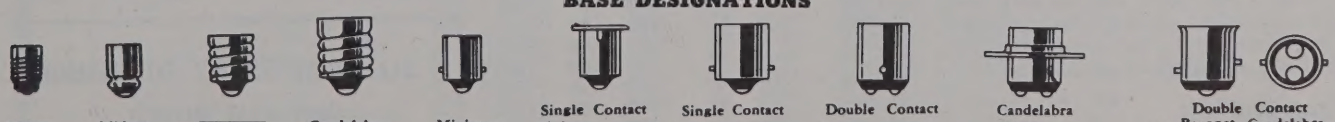
GENERAL ELECTRIC
MINIATURE LAMPS
BULB SHAPES AND SIZES

Bulbs are measured through their greatest diameter, in eighths of an inch. Thus a G-5 bulb is globe shape, 5/8 of an inch in diameter.



Lamp Cat. No.	Bulb Shape	Base	Volts	Amps. or Candle-power	Net Price Including Tax Ea.	Per Box of 10	Per Box of 10 in 100 Lots
PR-2	B-3½	S.C. MIN. FLG.	2.38	.50A	$0.17	$1.07	$0.96
PR-3	B-3½	S.C. MIN. FLG.	2.33	.50A	.17	1.07	.96
PR-4	B-3½	S.C. MIN. FLG.	2.33	.27A	.17	1.07	.96
PR-6	B-3½	S.C. MIN. FLG.	2.47	.30A	.17	1.07	.96
PR-7	B-3½	S.C. MIN. FLG.	3.70	.30A	.17	1.07	.96
PR-8	B-3½	S.C. MIN. FLG.	1.9	.60A	.19	1.20	1.07
PR-12	B-3½	S.C. MIN. FLG.	5.95	.50A	.17	1.07	.96
PR-14	B-3½	D.C. MIN. FLG.	2.38	.50A	.27	1.71	1.52
6	S 8	DC. BAY.	6.4	3.0A	.38	2.40	2.14
6IF	S 8	DC. BAY.	6.4	3.0A	.45	2.84	2.53
8	S 8	DC. BAY.	8	2.2A	.40	2.53	2.25
8IF	S 8	DC. BAY.	8	2.2A	.47	2.97	2.64
13	G-3½	MIN. SC.	3.70	.30A	.12	.76	.67
14	G-3½	MIN. SC.	2.47	.30A	.12	.76	.67
27	G-4½	MIN. SC.	4.9	.30A	.15	.95	.84
31	G-4½	MIN. SC.	6.15	.30A	.13	.82	.73
35C	G-5½	MIN. SC.	2.5	.80A	.17	1.07	.96
40	T-3¼	MIN. SC.	6.3	.15A	.12	.76	.67
41	T-3¼	MIN. SC.	2.5	.50A	.12	.76	.67
42	T-3¼	MIN. SC.	3.2	.35A	.13	.82	.73
43	T-3¼	MIN. BAY.	2.5	.5A	.12	.76	.67
44	T-3¼	MIN. BAY.	6.3	.25A	.12	.76	.67
45	T-3¼	MIN. BAY.	6.3	.35A	.13	.82	.73
46	T-3¼	MIN. SC.	6.3	.25A	.12	.76	.67
47	T-3¼	MIN. BAY.	6.3	.15A	.12	.76	.67
48	T-3¼	MIN. SC.	2.0	.06A	.16	1.01	.90
49	T-3¼	MIN. BAY.	2.0	.06A	.16	1.01	.90
50	T-3½	MIN. SC.	7.5	1 C.P.	.12	.76	.67
50G	G-3½	MIN. SC.	7.5	1 C.P.	.16	1.01	.90
50R	G-3½	MIN. SC.	7.5	1 C.P.	.16	1.01	.90
51	G-3½	MIN. BAY.	7.5	1 C.P.	.11	.69	.66
52	G-3½	MIN. SC.	14.4	1 C.P.	.17	1.07	.96
55	G-4½	MIN. BAY.	7.0	2 C.P.	.11	.69	.66
63	G-6	S.C. BAY.	7.0	3 C.P.	.12	.75	.67
67K	G-6	CAND.	13	3 C.P.	.24	1.52	1.35
71K	G-6	CAND.	22	3 C.P.	.37	2.34	2.08
72	G-6	D.C.BAY.	22	3 C.P.	.35	2.18	1.94
81	G-6	S.C. BAY.	6.5	6 C.P.	.14	.87	.77
88	S-8	S.C. BAY.	6.8	15 C.P.	.30	1.87	1.66
112	TL-3	MIN. SC.	1.20	.22A	.13	.82	.73
114	TL-2¾	SPECIAL	1.20	.20A	.14	.88	.79
123	G-3½	MIN. SC.	1.25	.30A	.12	.76	.67
131	G-3½	MIN. SC.	1.3	.10A	.12	.76	.67
136	G-4½	MIN. SC.	1.25	.60A	.15	.95	.84
222	TL-3	MIN. SC.	2.25	.25A	.13	.82	.73
223	FE-3¾	MIN. SC.	2.25	.25A	.12	.76	.67
224	TL-2¾	SPECIAL	2.15	.22A	.14	.88	.79
233	G-3½	MIN. SC.	2.33	.27A	.12	.76	.67
243	TL-3	MIN. SC.	2.33	.27A	.13	.82	.73
245	G-3½	MIN. SC.	2.46	.50A	.16	1.01	.90
248	G-5½	MIN. SC.	2.5	.80A	.15	.95	.84
263	G-3½	MIN. SC.	2.40	.35A	.16	1.01	.90
263X	G-3½	MIN. SC.	2.65	.30A	.16	1.01	.90
331	T-1¾	S.C. MID. FLG.	1.35	.06A	.70	4.42	$3.93
363	G-3½	MIN. BAY.	14	.20A	.15	.95	.84
363G	G-3½	MIN. BAY.	14	.20A	.19	1.20	1.07
363R	G-3½	MIN. BAY.	14	.20A	.19	1.20	1.07
365	G-3½	MIN. SC.	3.69	.50A	.16	1.01	.90
425	G-4½	MIN. SC.	5.0	.50A	.16	1.01	.90
428	G-4½	MIN. SC.	12.5	.25A	.12	.76	.67
430	G-4½	MIN. SC.	14	.25A	.13	.82	.73
431	G-4½	MIN. BAY.	14	.25A	.13	.82	.73
431R	G-4½	MIN. BAY.	14	.25A	.17	1.07	.96
432	G-4½	MIN. SC.	18	.25A	.14	.88	.79
432R	G-4½	MIN. SC.	18	.25A	.18	1.14	1.01
432G	G-4½	MIN. SC.	18	.25A	.18	1.14	1.01
433	G-4½	MIN. BAY.	18	.25A	.14	.88	.79
452	X-4¼	MID. SC.	14	.20A	.65	4.11	3.65
461	G-5	MIN. SC.	14	.33A	.17	1.07	.96
465	G-5	MIN. SC.	10	.50A	.18	1.14	1.01
502	G-4½	MIN. SC.	5.10	.15A	.13	.82	.73
509K	G-6	CAND. SC.	24	.18A	.45	2.84	2.53
526	G-6	MIN. SC.	12.5	.25A	.20	1.26	1.12
605	G-4½	MIN. SC.	6.15	.50A	.15	.95	.84
715	FE-3¾	MIN. SC.	1.25	.30A	.13	.82	.73
958	G-16½	D.C. BAY.	5.5	2.0-.82A	1.50	9.48	8.43
965	T-4½	MIN. SC.	9.84	.50A	.18	1.14	1.01
1209	RP-11	S.C. PREF.	6.1	.32 C.P.	.60	3.74	3.32
1224K	G-6	CAND.	32	3 C.P.	.50	3.16	2.81
1402	P-2½	MID. SC.	14	.20A	.60	3.79	3.37
1442	C-6	MIN. SC.	18	.25A	.24	1.52	1.35
1445	G-3½	MIN. BAY.	18	.15A	.19	1.20	1.07
1446	G-3½	MIN. SC.	12	.20A	.15	.95	.84
1447	G-3½	MIN. SC.	18	.15A	.19	1.20	1.07
1449	G-3½	MIN. SC.	14	.20A	.15	.95	.84
1449R	G-3½	MIN. SC.	14	.20A	.19	1.20	1.07
1458	G-5	MIN. BAY.	20	.25A	.15	.95	.84
1471	G-6	CAND.	12	.26A	.40	2.53	2.25
1474	T-3	MIN. SC.	14	.17A	.35	2.21	1.97
1476	T-3	MIN. SC.	18	.17A	.40	2.53	2.25
1477	T-3	MIN. SC.	24	.17A	.40	2.53	2.25
1482	G-4½	MIN. SC.	6	.45A	.17	1.07	.96
1483	G-4½	MIN. SC.	6	.04A	.22	1.39	1.24
1484	T-4½	MIN. BAY.	25	.20A	.32	2.02	1.80
1487	T-3¼	MIN. SC.	14	.20A	.17	1.07	.96
1488	T-3¼	MIN. BAY.	14	.15A	.17	1.07	.96
1490	T-3¼	MIN. BAY.	3.2	.16A	.12	.76	.67
1491	G-8	D.C. BAY.	2.4	.80A	.35	2.21	1.97
1493	S-8	D.C. BAY.	6.5	2.95A	.85	5.37	4.78
1606	S-8	D.C. INDEX	6.4	2.69A	.40	2.40	2.12
1630	S-8	D.C. PF.	6.5	2.75A	1.00	6.32	5.62
1763	S-11	S.C. PREF.	6.1	4.10A	.85	5.10	4.51
1767	T-1¾	MID. SC.	2.5	.20A	.58	3.67	3.26
1768	T-1¾	MID. SC.	6	.20A	.58	3.67	3.26
1801	T-3¼	MIN. SC.	2.5	.50A	.18	1.14	1.01
1815	T-3¼	MIN. BAY.	14	.20A	.17	1.07	.96
1829	T-3¼	MIN. BAY.	28	.07A	.30	1.90	1.69
12C	T-2	TEL. SLIDE	12	.....	.60	3.79	3.37
18A	T-2	TEL. SLIDE	18	.....	.60	3.79	3.37
24B	T-2	TEL. SLIDE	24	.....	.60	3.79	3.37
30A	T-2	TEL. SLIDE	30	.....	.60	3.79	3.37
48C	T-2	TEL. SLIDE	48	.....	.65	4.11	3.65
48D	T-2	TEL. SLIDE	48	.....	.65	4.11	3.65
48H	T-2	TEL. SLIDE	48	.....	.65	4.11	3.65

BASE DESIGNATIONS



Midget Mid. — Midget Grooved — Miniature Min. — Candelabra Cand. — Miniature Bayonet Min. Bay. — Single Contact Miniature Flanged S.C. Min. Flanged — Single Contact Bayonet Candelabra S. C. Bay. — Double Contact Bayonet Candelabra D. C. Bay. — Candelabra Prefocus S. C. Pref. D. C. Pref. — Double Contact Bayonet Indexing Candelabra D. C. Index'g

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Sun Radio & ELECTRONICS CO. INC.

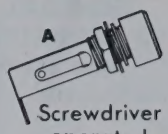
Through panel
A

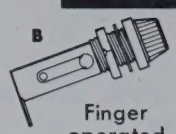
Meter-back
B

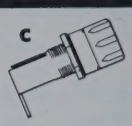
Can cover
C

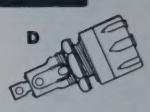
Hinged can cover
D

Snap-on fuse holders
E


Screwdriver operated
A


Finger operated
B


Miniature
C


Watertight
D

LITTELFUSE

SPECIALIZED MOUNTINGS

Cat. No.	Fig.	For Fuse Type	Description	Net Ea.	Net Ea. Per 100
353001	A	3AG-3AB	Thrupanel Mounting	$ .33	$ .28
383001	A	8AG	Thrupanel Mounting	.15	.125
383002	B	8AG	Meter Back	.12	.10
351002	C	3AG-3AB	Bolted Cover	.24	.20
351007	C	2-3AG-3AB	Bolted Cover	.44	.37
351005	D	3AG-3AB	Hinged Cover	.44	.37
351009	D	2-3AG-3AB	Hinged Cover	.53	.44
094024	E	3AG	Snap On Pigtail Replacement	.18	.15

LITTELFUSE

EXTRACTOR FUSE POSTS

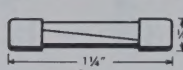
Cat. No.	Fig.	For Fuse Type	Description	Length Under Panel	Net Ea.	Net Ea. Per 100
341001	A	3AG-3AB	Screw Slot	1.719"	$ .26	$ .225
342001	B	3AG-3AB	Finger Knob	1.719"	.26	.225
342003	C	3AG-3AB	Miniature Knob	1.035"	.26	.225
342006	C	3AG-3AB	Watertight Knob	1.375"	1.38	1.18
342008	C	3AG-3AB	Min. Dustproof Knob and Drip-Proof	1.035"	.44	.375
371001	A	8AG	Screw Slot	1.719"	.26	.225
372001	B	8AG	Finger Knob	1.719"	.26	.225
442001	B	4AG-4AB	Finger Knob	2.0"	.74	.625
442006	B	4AG-4AB	Watertight Knob	1.375"	1.38	1.173
571004	D	5AG	Watertight Knob	1.472"	.88	.74

LITTELFUSE

3AG and 3AB ¼" x 1¼" Fuses

U. L. Approved

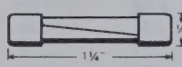
311000 Series Littelfuses—Quick to medium-blowing fuses—for use in radios, auto-radios, amplifiers, etc. Straight-type fuse element—positioned to center of fuse—makes open link always in the visible portion of fuse.



% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
311005.	5	32	$.03	$2.45
31107.5	7½	32	.03	2.45
311010.	10	32	.025	1.96
311015.	15	32	.025	1.96
311020.	20	32	.025	1.96
311025.	25	32	.03	2.45
311030.	30	32	.03	2.45

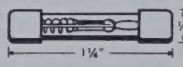
312000 Series Littelfuses—Quick-acting fuses—for low time-lag applications similar to the 311000 fuse series above. Diagonal element alignment of this fuse assures accurate alignment and calibration, even when the fuse element is expanded by heat.



% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
312.062	1/16	250	$.09	$7.35
312.125	⅛	250	.09	7.35
312.150	15/100	250	.09	7.35
312.175	175	250	.09	7.35
312.187	3/16	250	.09	7.35
312.250	¼	250	.09	7.35
312.300	3/10	250	.09	7.35
312.375	⅜	250	.09	7.35
312.500	½	250	.09	7.35
312.750	¾	250	.09	7.35
312001.	1	250	.04	3.43
31201.5	1½	250	.04	3.43
312002.	2	250	.04	3.43
312003.	3	250	.04	3.43
312004.	4	250	.06	4.90
312005.	5	250	.06	4.90
312006.	6	250	.06	4.90
312008.	8	125	.09	7.35

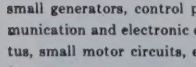
313000 Series Littelfuses—Slo-Blo fuses with high time-lag to withstand heavy surges—blows quickly on shorts. Designed for circuits with equipment having high inductive or capacitative surges, such as magnets, solenoids, etc., and for circuits with heavy starting currents, such as motors and lamp circuits. Anti-fatigue construction (compound element, with spring and resistor) makes these fuses ideal for intermittent-duty circuits. ***U. L. Approved Through 5 Amps.***



% of rating	Blow time
110%	Life
135%	0-1 hour
200%	60 seconds max. 5 seconds min.

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
313.010	1/100	125	$.15	$12.25
313.032	1/32	125	.15	12.25
313.062	1/16	125	.15	12.25
313.100	1/10	125	.15	12.25
313.125	1/8	125	.15	12.25
313.150	15/100	125	.15	12.25
313.175	.175	125	.15	12.25
313.187	3/16	125	.15	12.25
313.200	2/10	125	.15	12.25
313.250	1/4	125	.15	12.25
313.300	3/10	125	.15	12.25
313.375	3/8	125	.15	12.25
313.400	4/10	125	.15	12.25
313.500	1/2	125	.15	12.25
313.600	6/10	125	.15	12.25
313.750	3/4	125	.15	12.25
313.800	8/10	125	.15	12.25
313001	1	125	.12	9.80
3131.25	1-1/4	125	.12	9.80
31301.5	1-1/2	125	.12	9.80
31301.6	1-6/10	125	.12	9.80
313002.	2	125	.12	9.80
31302.5	2-1/2	125	.12	9.80
313003.	3	125	.12	9.80
31303.2	3-2/10	125	.12	9.80
313004.	4	125	.12	9.80
313005.	5	125	.12	9.80
3136.25	6-1/4	32	.12	9.80
313008.	8	32	.12	9.80
313010.	10	32	.12	9.80
313015.	15	32	.12	9.80
313020.	20	32	.12	9.80
313025.	25	32	.12	9.80
313030.	30	32	.12	9.80

314000 Series Littelfuses—The smallest Underwriters' Laboratory approved fuses in ratings this high. Steatite enclosed, arc-quenching, powder filled fuses. Shatter-proofed against quick shorts. Medium time lag. Recommended for use with amplifiers, rectifiers, battery charging equipment, small generators, control panels, amusement devices, communication and electronic equipment, radios, signal apparatus, small motor circuits, etc. Take less space than N.E.C fuses. ***U. L. Approved Through 15 Amps.***



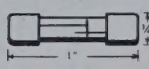
% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
314001.	1	250	$.09	$7.35
314002.	2	250	.09	7.35
314003.	3	250	.09	7.35
314005.	5	250	.09	7.35
314008.	8	250	.09	7.35
314010.	10	250	.09	7.35
314012.	12	250	.09	7.35
314015.	15	250	.09	7.35
314020.	20	250	.09	7.35
314030	30	125	.09	7.35

LITTELFUSE

8AG ¼" x 1" Fuses

361000 Series Instrument Littelfuses You can rely on the efficiency and high speed action of these fuses—always "quicker than a short circuit". Designed for high-speed action. For the protection of delicate electrical equipment—microammeters, galvanometers, milliammeters, wattmeters, radio "B" circuits, thermocouples, voltmeters, test equipment, telephone systems, small rectifier and power tubes, railway signal meters, set analyzers, therapeutic machines and general instrument protection.

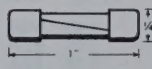


% of rating	Blow time
100%	Life
150%	0-10 seconds

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
361.002	1/500	250	$.42	$34.30
361.005	1/200	250	.18	14.69
361.010	1/100	250	.12	9.80
361.031	1/32	250	.12	9.80
361.062	1/16	250	.09	7.35
361.125	⅛	250	.09	7.35
361.250	¼	250	.09	7.35
361.375	⅜	250	.09	7.35
361.500	½	250	.09	7.35
361.750	¾	250	.09	7.35
361001.	1	250	.06	4.90
361001.5	1½	250	.06	4.90
361002.	2	250	.06	4.90
361003.	3	250	.06	4.90
361005.	5	32	.06	4.90

362000 Series Littelfuses—Medium lag fuses designed to standard N.E.C. blowing specifications, that is for the same applications as the 3AG fuses. This smaller fuse is used in situations where size is a factor because of space limitation or the need to differentiate physically between two fuses in close proximity. Not to be confused with the 8AG instrument fuse, 361000 series, which is an extra fast-acting fuse for the protection of delicate instruments.

8AG U/L Fuses (TV)



% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
362.125	⅛	250	$.09	$7.35
362.250	¼	250	.09	7.35
362.375	⅜	250	.09	7.35
362.500	½	250	.09	7.35
362.750	¾	250	.09	7.35
362001.	1	250	.06	4.90
36201.5	1½	125	.06	4.90
362002.	2	125	.06	4.90
362003.	3	125	.06	4.90
362005.	5	125	.03	2.45

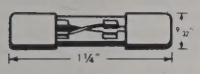
ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

LITTELFUSE

4AG and 4AB 9/32" x 1¼" Fuses

411000 Series Littelfuses Medium-to-slow fuses especially developed for aircraft use. Designed to withstand vibrations, shocks, fatigue and the repeated off-and-on-circuit operating conditions encountered in aircraft performance.

4AG Aircraft Fuses

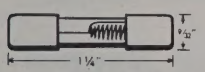


% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
411010.	10	32	$.08	$6.37
411015.	15	32	.08	6.37
411020.	20	32	.08	6.37
411025.	25	32	.08	6.37
411030.	30	32	.08	6.37
411035.	35	32	.11	8.82

413000 Series Slo-Blo Littelfuses Designed to meet aircraft vibration test requirements. High time-lag assures extra protection against sustained overloads by permitting lower amperage fuses to be used on inductive loads. Spring-and-link element structure of these fuses takes up thermal expansion and contraction and eliminates cyclic fatigue, crystallization, and resulting fracture of the fuse link. When the compound element temperature reaches the melting point of the alloy, spring pulls away from the link. On short circuits the link blows instantly. A triple-value fuse with a long life. Spring-and-link construction through 5 amps.

4AG Slo-Blo Fuses



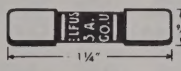
% of rating	Blow time
110%	Life
135%	0-1 hour
200%	60 seconds max. 5 seconds min.

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
413.100	1/10	250	$.18	$14.69
413.150	15/100	250	.18	14.69
413.200	2/10	250	.18	14.69
413.250	1/4	250	.18	14.69
413.300	3/10	250	.18	14.69
413.400	4/10	250	.18	14.69
413.500	1/2	250	.18	14.69
413.600	6/10	250	.18	14.69
413.750	3/4	250	.18	14.69
413.800	8/10	250	.18	14.69
413001.	1	250	.15	12.25
4131.25	1-1/4	250	.15	12.25
41301.6	1-6/10	250	.15	12.25
413002.	2	250	.15	12.25
41302.5	2-1/2	250	.15	12.25
413003.	3	250	.15	12.25
41303.2	3-2/10	250	.15	12.25
413004.	4	32	.15	12.25
413005.	5	32	.15	12.25
4136.25	6-1/4	32	.15	12.25
413008.	8	32	.15	12.25
413010.	10	32	.15	12.25
413015.	15	32	.15	12.25
413020.	20	32	.15	12.25
413025.	25	32	.15	12.25
413030.	30	32	.15	12.25
413035.	35	32	.15	12.25
413040.	40	32	.15	12.25

Advantages of Littelfuse Lock-Cap Construction

1—Caps will not come off—fuse markings on caps are not lost.
2—Protection against extreme vibration. Fuse element secured against breakage.
3—Protection against rapid and extreme temperature changes—heat to cold, and vice versa.
4—Protection against "perspiration" and sweating of the fuse.
5—Hermetic sealing of the filament against moisture.

414000 Series Littelfuses—Medium lag, steatite-enclosed, shatter-proof fuses. Spring-and-link construction in sizes under 5 amps. Mechanical depolarization, non-crystallizing features incorporated into ratings over 5 amps. This group of Littelfuses has locked-cap assembly and unusually long vibration life. Recommended for aircraft, where short circuits are severe (115V.-400-cycle circuits).



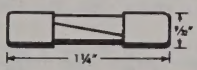
% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
414001.	1	250	$.15	$12.25
414002.	2	250	.15	12.25
414003.	3	250	.15	12.25
414005.	5	125*	.15	12.25
414008.	8	125*	.15	12.25
414010.	10	125*	.15	12.25
414015.	15	125*	.15	12.25
414020.	20	125*	.15	12.25
414025.	25	32	.15	12.25
414030.	30	32	.15	12.25
414035.	35	32	.15	12.25
414040.	40	32	.15	12.25

**Good for power supplies up to 25 KVA at 115V-400 cycles*

417000 Series Littelfuses—Medium lag fuses for applications where a larger size fuse is desirable and vibration is not a factor to be considered. These straight link fuses do not incorporate anti-vibration features but are lower in cost than the regular anti-vibration 4 AG fuses. Designed with diagonally aligned element and Littelfuse exclusive locked-cap construction.

4AG Straight-element Fuses



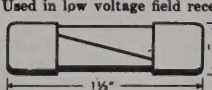
% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
417001.	1	250	$.07	$5.88
417002.	2	250	.07	5.88
417003.	3	250	.07	5.88
417005.	5	32	.06	4.90
417010.	10	32	.06	4.90
417015.	15	32	.06	4.90
417020.	20	32	.06	4.90
417025.	25	32	.06	4.90
417030.	30	32	.06	4.90
417035.	35	32	.07	5.88
417040.	40	32	.07	5.88
417050.	50	32	.07	5.88

LITTELFUSE

5AG 13/32" x 1½" Fuses

517000 Series Littelfuses—Medium lag, heavy duty fuses for applications where a larger physical size is desirable in a fuse and anti-vibration construction is not necessary. Lower in cost than the aircraft type 5 AG, these fuses do not have anti-vibration features, but are built with diagonally aligned straight element to avoid element contact with glass and the exclusive Littelfuse locked-cap construction. Used in low voltage field receivers and transmitters.



% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

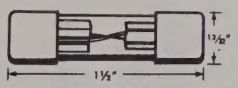
Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
517001.	1	250	$.09	$7.35
517002.	2	250	.09	7.35
517003.	3	250	.09	7.35
517004.	4	32	.09	7.35
517005.	5	32	.09	7.35
517010.	10	32	.09	7.35
517015.	15	32	.09	7.35
517020.	20	32	.09	7.35
517025.	25	32	.09	7.35
517030.	30	32	.09	7.35

LITTELFUSE

5AG and 5AB 13/32" x 1½" Fuses

511000 Series Littelfuses—For general aircraft installations where mechanical strength or the current-breaking capacity of the 4AG are inadequate. 5AG Littelfuses incorporate anti-vibration element twisted to a 90° angle. "Mechanically depolarized" construction—"wings" or curved edges of the element come in contact with glass tube walls—increase natural vibration period approximately four times, eliminate sympathetic vibration. For aircraft, railroads, portable tools, and applications where vibration and shock are encountered.

5AG Aircraft Fuses

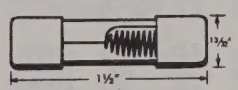


% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
511005.	5	32	$.09	$7.35
511010.	10	32	.09	7.35
511015.	15	32	.09	7.35
511020.	20	32	.09	7.35
511025.	25	32	.09	7.35
511030.	30	32	.09	7.35
511035.	35	32	.09	7.35
511040.	40	32	.09	7.35
511050.	50	32	.09	7.35
511060.	60*	32	.09	7.35

**Carries only 100% rating on life test*

513000 Series Slo-Blo Aircraft Littelfuses—Construction enables them to withstand excessive current surges without blowing. Assure maximum protection to equipment on shorts and instantaneous damaging overloads. Recommended for aircraft motors, relays and industrial applications in which major factors are high time lag protection coupled with vibration and shock resistance.



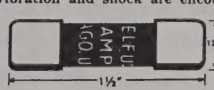
% of rating	Blow time
110%	Life
135%	0-1 hour
200%	60 seconds max. 5 seconds min.

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
513001.	1	250	$.15	$12.25
513002.	2	250	.15	12.25
513003.	3	250	.15	12.25
513005.	5	32	.15	12.25
513010.	10	32	.15	12.25
513015.	15	32	.15	12.25
513020.	20	32	.15	12.25
513025.	25	32	.15	12.25
513030.	30	32	.15	12.25
513040.	40	32	.15	12.25
513050.	50	32	.15	12.25
513060.	60*	32	.15	12.25

**Carries only 100% rating on life test*

514000 Series Littelfuses—Similar in action to the 4AB group. Medium lag, bakelite enclosed, shatterproof fuses. Spring-and-link construction in sizes under 5 amps. Mechanical depolarization, non-crystallizing features incorporated into ratings over 5 amps. For service where excessive vibration and shock are encountered.

5AB Aircraft Fuses



% of rating	Blow time
110%	Life
135%	0-1 hour
200%	0-2 minutes

Catalog No.	Amp. Rating	Max. Volt.	Net Ea.	Net Per 100
514001.	1	250	$.18	$14.69
514002.	2	250	.18	14.69
514003.	3	250	.18	14.69
514005.	5	32	.18	14.69
514010.	10	32	.18	14.69
514015.	15	32	.18	14.69
514020.	20	32	.18	14.69
514025.	25	32	.18	14.69
514030.	30	32	.18	14.69
514035.	35	32	.18	14.69
514040.	40	32	.18	14.69
514050.	50	32	.18	14.69
514060.	60*	32	.18	14.69

**Carries only 100% rating on life test*

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

LITTELFUSE OPEN TYPE FUSE MOUNTING PANELS

Stocked in 12-pole units, cut to 1, 2, 3, 4 or more poles as ordered or you may cut them in your plant. (⅛" allowance for saw cut.)

MOUNTINGS — TYPE "S"

The new Littelfuse "Lug-Clip" mountings—have Bright Dip Phosphor Bronze fuse clips with solder terminals made as an integral part of the clip. Non-turning anchors firmly hold clips to base.

Made for 3AG and 8AG size fuses. All 1⅜" long.

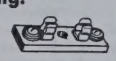
Mountings with	For 8AG Fuses Catalog No.	No. Poles	Dim. Width	For 3AG Fuses Catalog No.	No. Poles	Dim. Width	Net Ea.	Net Ea. Per 100
Solder Terminals–	387001	1	1½	357001	1	1½	$.09	$.075
	387002	2	1 1/8	357002	2	1 1/8	.18	.15
–Type "S"	387003	3	1¾	357003	3	1¾	.27	.225
	387004	4	2⅜	357004	4	2⅜	.36	.30
	387005	5	3	357005	5	3	.45	.375
	387006	6	3 5/8	357006	6	3 5/8	.54	.45
	387007	7	4¼	357007	7	4¼	.63	.525
	387008	8	4⅞	357008	8	4⅞	.72	.60
	387009	9	5½	357009	9	5½	.81	.675
1 Pole to 12 poles	387010	10	6⅛	357010	10	6⅛	.90	.75
	387011	11	6¾	357011	11	6¾	.99	.825
	387012	12	7⅜	357012	12	7⅜	1.08	.90

MOUNTINGS — TYPE "T"

Nickel-plated brass screw terminals are spaced to Underwriters' Laboratories requirements for equipment circuit protection. Screw terminals seat in Bakelite base to insure better, permanent contact and provide insulating base around terminal screw. Type 456 (4AG size) has lock washers as generally used for aircraft service. Type 356 (3AG fuse size) and Type 556 (5AG or Midget fuse size) have cuppd wire-retaining washers under terminals as required by Underwriters' Laboratory.

Plating on Screw Terminal Mountings—Type 356 Mountings have Nickel-plated Phosphor Bronze fuse clips because of low maximum current service (20 Amps.). Service on Types 456 and 556 is usually more severe and clips are of Silver-Plated Beryllium copper.

Made for 3AG, 4AG and 5AG size fuses. 3AG and 4AG types are 2⅜" long. 5AG type is 2¾" long.

Mountings with Screw Terminals—Type "T"  1 Pole to 12 poles

No. Poles	For 3AG Fuses Catalog No.	Dim. Width	Net Ea.	Net Ea. Per 100	For 4AG Fuses Catalog No.	Dim. Width	Net Ea.	Net Ea. Per 100	For 5AG Fuses Catalog No.	Dim. Width	Net Ea.	Net Ea. Per 100
1	356001	25/32	$.21	$ .175	456001	25/32	$ .24	$ .20	556001	27/32	$ .30	$ .20
2	356002	1 11/16	.42	.35	456002	1 11/16	.48	.40	556002	1 13/16	.60	.40
3	356003	2 19/32	.63	.525	456003	2 19/32	.72	.60	556003	2 25/32	.88	.60
4	356004	3½	1.24	1.04	456004	3½	1.33	1.12	556004	3 3/4	1.94	1.29
5	356005	4 13/32	1.57	1.30	456005	4 13/32	1.66	1.38	556005	4 23/32	2.53	1.63
6	356006	5 5/16	1.87	1.57	456006	5 5/16	1.98	1.66	556006	5 11/16	2.93	1.95
7	356007	6 7/32	2.20	1.83	456007	6 7/32	2.31	1.93	556007	6 31/32	3.42	2.28
8	356008	7⅛	2.51	2.10	456008	7⅛	2.64	2.20	556008	7 5/8	3.92	2.62
9	356009	8 1/32	2.82	2.35	456009	8 1/32	2.96	2.47	556009	8 19/32	4.41	2.94
10	356010	8 15/16	3.14	2.62	456010	8 15/16	3.28	2.74	556010	9 9/16	4.90	3.27
11	356011	9 27/32	3.46	2.88	456011	9 27/32	3.61	3.01	556011	10 17/32	5.40	3.60
12	356012	10¾	3.77	3.15	456012	10¾	3.94	3.28	556012	11½	6.30	4.12

fuse clip

fuse clip earless

terminal clip

LITTELFUSE STANDARD FUSE CLIPS

Available in 3 types. "X" with ears or fuse stops. "XX", earless. "XXX", lug clips with solder terminal as part of the clips. Furnished in either silver-plated beryllium copper or phosphor bronze.

BERYLLIUM COPPER CLIPS

Size	For Fuse Type	X Cat. No.	XX Cat. No.	Net Ea.	Net Per 100	XXX Cat. No.	Net Ea.	Net Per 100
¼"	SFE, 3AG, 8AG	121001	121002	$ .03	$2.45	121004	$ .048	$3.92
5/32"	4AG SIZE	123001	123002	.048	3.92	123004	.072	7.35
13/32"	5AG SIZE	125001	125002	.09	7.35	125004	.12	9.80
9/16"	NEC 30 FUSES	127001	127002	.108	8.82			
13/16"	STAND. HI-VOLT.	129001	129002	.24	19.60			

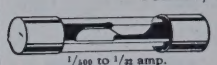
PHOSPHOR BRONZE CLIPS

Size	For Fuse Type	X Cat. No.	XX Cat. No.	Net Ea.	Net Per 100	XXX Cat. No.	Net Ea.	Net Per 100
¼"	SFE, 3AG, 8AG	101001	101002	$ .012	$ .98	101003	$ .018	$1.47
5/32"	4AG SIZE	103001	103002	.024	1.96	103003	.03	2.45
13/32"	5AG SIZE	105001	105002	.03	2.45	105003	.048	3.92
9/16"	NEC 30 FUSES	107001	107002	.036	2.94			
13/16"	STAND. HI-VOLT.	109001	109002	.096	7.84			

BUSS FAST ACTING FUSES for PROTECTION OF INSTRUMENTS, etc.

¼ x 1¼ inch. Glass tube

Formerly called 3AG.


1/500 to 1/2 amp. 1/16 to 2 amp.

Provide high speed action necessary to protect sensitive instruments or delicate apparatus.

1/500 to 1/32 ampere sizes have bridge construction. This prevents physical damage to delicate element from rough handling or vibration.

1/16 to 2 ampere sizes have straight through element.

Fuses rated for 250 volts or less are listed as approved by Underwriters' Laboratories.

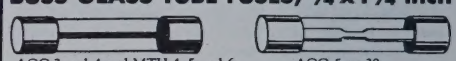
Test specifications — carry 110%, open at 135% in 1 hour or less. 1/500 to 2 ampere sizes also will open at 200% load in 5 seconds or less.

Voltage	Symbol	Amperes
250 or less	AGC	1/500, 1/200, 1/100, 1/32, 1/16, ⅛, ¼, ⅜, ½, ¾, 1, 1½ or 2

MBW & MBB fuses now called AGC.

AGC	Net Ea.	Net Ea. Per 100
1/500	.72	.60
1/200	.28	.23
1/100	.24	.20
1/32	.23	.19
1/16	.15	.125
⅛	.096	.08
¼, ⅜, ½ or ¾	.09	.075
1, 1½, or 2	.048	.04

BUSS GLASS TUBE FUSES, ¼ x 1¼ inch


AGC 3 and 4 and MTH 4, 5 and 6 AGC 5 to 30

Formerly called 3AG.

Test specification — carry 110%, open at 135% within 1 hour.

Listed as approved by Underwriters' Laboratories.

Voltage	Symbol	Amperes
250 or less	AGC	3
250 or less	MTH	4, 5, or 6
32 or less	AGC	4, 5, 6, 7½, 10, 15, 25 or 30

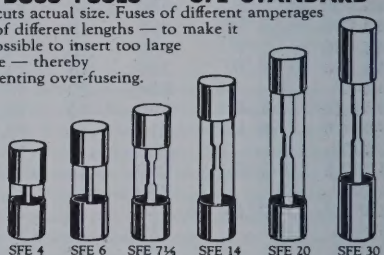
20 ampere size is an SFE 20 fuse.

Sizes larger than 30 ampere are not recommended as clips or fuseholders would not permit fuse to carry such high currents. If surges or starting currents make heavier fuse necessary, use MDL FUSETRON dual-element fuses.

AGC	Net Ea.	Net Ea. Per 100
3 or 4	.042	.035
5, 6, 7½, 10 or 15	.03	.025
25 or 30	.036	.03
MTH		
4, 5, or 6	.06	.05

BUSS FUSES — SFE STANDARD

All cuts actual size. Fuses of different amperages are of different lengths — to make it impossible to insert too large a size — thereby preventing over-fuseing.


SFE 4 SFE 6 SFE 7½ & SFE 9 SFE 14 SFE 20 SFE 30

Glass tube — diameter ¼ inch. Length as per table below.

Test specification — carry 100%, open at 125% within ½ hour.

Listed as approved by Underwriters' Laboratories.

Made according to specifications of Society of Automotive Engineers.

Voltage	Symbol & Amperes	Length Inches	Shipping Weight Lbs. Per 100
32 or less	SFE4	⅝	0.73
"	SFE6	¾	0.75
"	SFE7½	⅞	0.80
"	SFE9	⅞	0.80
"	SFE14	1 1/16	0.82
"	SFE20	1¼	0.87
"	SFE30	1 7/16	1.60

SFE	Net Ea.	Net Ea. Per 100
4, 6, 7½ or 9	.03	.025
14 or 20	.024	.02
30	.036	.03

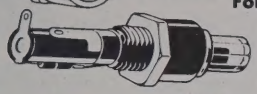
The solution of any procurement problem is as close as your phone. Call ORegon 5-8600 to get SUN RADIO'S fast personalized service!

BUSS Panel Mounted FUSEHOLDERS

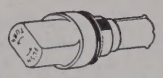
Lamp Indicating Series HK and HJ

For ¼ x 1 and ¼ x 1¼ inch Fuses

HKT



HKL



HKX

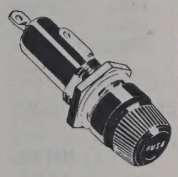
Type	Fuse Size Inches	Circuit Voltage	Maximum Ampere Rating	Type Lamp	Lamp Resistor Ohms
HKL	¼ x 1¼	100 to 250	20	Neon	220,000
HKL-X	¼ x 1¼	100 to 250	20	Neon	220,000
HKR	¼ x 1¼	24 to 32	20	Incandescent	330
HKX	¼ x 1¼	24 to 32	20	Incandescent	330
HKT	¼ x 1¼	10 to 14	20	Incandescent	None
HJL	¼ x 1	100 to 250	20	Neon	220,000

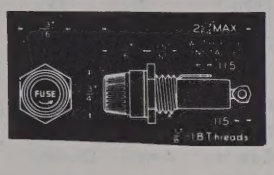
Type Knob	Knob Color	Body Color	Wt. Lbs per 100	Net Ea.	Net Ea. Per 100
Octagon	Clear	Black	5½	1.04	.87
Flat Sided	Clear	Black	5½	1.04	.87
Octagon	Amber	Brown	5½	1.69	1.41
Flat Sided	Amber	Brown	5½	1.69	1.41
Octagon	Amber	Brown	5½	1.69	1.41
Octagon	Clear	Black	5½	1.04	.87

BUSS Panel Mounted FUSEHOLDERS

Non-Indicating Series HJ, HK and HCM

For ¼ x 1, ¼ x 1¼ and 9/32 x 1¼ inch FUSES



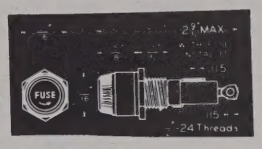


HCM Fuseholder
for 9/32 x 1¼ and ¼ x 1¼ inch fuses

Normal current carrying capacity 18 amperes.

Knob grips 9/32 x 1¼ inch fuse tightly and pulls it from holder when knob is removed. ¼ x 1¼ inch fuse is not held by knob but extends from holder when knob is removed.

	Net Ea.	Net Per 100
HCM	.35	.32



HKP Fuseholder
for ¼ x 1¼ inch fuses

Normal current carrying capacity 15 amperes.

Knob grips fuse tightly and pulls it from holder when knob is removed.

Listed as approved by Underwriters' Laboratories for 15 ampere rating and any voltage up to 250

	Net Ea.	Net Per 100
HKP	.28	.23

HJM Fuseholder
for ¼ x 1 inch fuses

Normal current carrying capacity 15 amperes.

Knob grips fuse tightly and pulls it from holder when knob is removed.

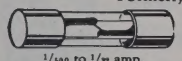
Listed as approved by Underwriters' Laboratories for 5 ampere rating and any voltage up to 125.

	Net Ea.	Net Per 100
HJM	.28	.23

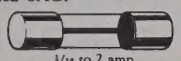
BUSS FAST ACTING FUSES for PROTECTION OF INSTRUMENTS, etc.

¼ x 1 inch. Glass tube

Formerly called 8AG.



1/500 to 1/32 amp.



1/16 to 2 amp.

Provide high speed action necessary to protect sensitive instruments or delicate apparatus.

1/500 to 1/32 ampere sizes have bridge construction. This prevents physical damage to delicate element from rough handling or vibration.

1/16 to 2 ampere sizes have straight through element.

Fuses rated for 250 volts or less are listed as approved by Underwriters' Laboratories.

Test specification — carry 100%, open at 200% within 5 seconds.

Resistance of AGX Fast-Acting Fuses

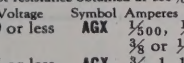
Ampere Rating	Cold Resis.[1] Approx. (ohms)	Hot Resis.[2] Approx. (ohms)	Ampere Rating	Cold Resis.[1] Approx. (ohms)	Hot Resis.[2] Approx. (ohms)
1/500	2500	3300	3/8	1.9	10.5
1/200	450	770	1/2	1.0	4.3
1/100	150	310	3/4	.78	4.7
1/32	24	83	1	.35	.75
1/16	6.6	10.6	1 1/2	.10	.33
1/8	1.6	3.1	2	.07	.21
1/4	2.9	9.6			

[1] Cold resistance obtained on Wheatstone Bridge.
[2] Hot resistance obtained at 100% load.

Voltage	Symbol	Amperes
250 or less	AGX	1/500, 1/200, 1/100, 1/32, 1/16, 1/8, 1/4, 3/8 or 1/2
125 or less	AGX	3/4, 1, 1 1/2 or 2

MJB & MJW fuses now called AGX.

BUSS GLASS TUBE FUSES, ¼ x 1 inch



Formerly called 8AG

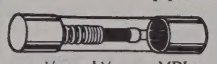
Test specification — carry 110%, open at 135% within 1 hour.

125 volt sizes listed as approved by Underwriters' Laboratories.

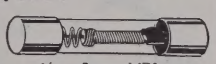
Voltage	Symbol	Amperes
125 or less	AGX	3, 4 or 5
32 or less	AGX	8, 10, 15, 20, 25 or 30

AGX	Net Ea.	Net Per 100
1/500	.72	.60
1/200	.28	.23
1/100	.24	.20
1/32	.23	.19
1/16	.15	.125
1/8	.096	.08
1/4, 3/8, 1/2 or 3/4	.09	.075
1, 1 1/2, 2, 3, or 4	.048	.04
5, 8, 10, 15 or 20	.03	.025
25 or 30	.036	.03

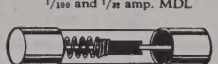
FUSETRON GLASS TUBE FUSES, ¼ x 1¼ inch



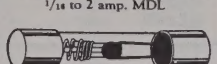
1/100 and 1/32 amp. MDL



1/16 to 2 amp. MDL



2 1/2 to 30 amp. MDL



1¼ to 7 amp. MDX

DUAL-ELEMENT — SLOW BLOWING TYPE

These fuses avoid needless blows from starting currents or surges. They have a fuse link which operates only on very high overloads or short-circuits — they have a thermal cutout which functions on low overloads — the thermal cutout cannot operate quickly at any load, hence long time-lag is obtained. Yet protection is afforded against short-circuits or continued overloads.

Test specification — carry 110%, open at 135% within 1 hour.

	MDL	MDX
Approximate blowing time: at 200% load	25 sec.	12 sec.
at 300% "	8 "	3 "
at 500% "	3 "	1/4 "

125 and 250 volt sizes listed as approved by Underwriters' Laboratories. MDL fuses have longer time-lag and greater resistance to vibration than MDX fuses but are not listed by the Underwriters' Laboratories in sizes above 2 8/10 amps.

Voltage	Symbol	Amperes
250 or less	MDL	1/100, 1/32, 1/16, 1/10, 1/8, 1 5/100, 17 5/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 3/4, 8/10 or 1
250 or less	MDX	1 1/4, 1 1/2, 1 8/10 or 2
125 or less	MDL	1 1/4, 1 1/2, 1 8/10, 2, 2 1/2, or 2 8/10
125 or less	MDX	3, 3 2/10, 4, 5, 6 1/4 or 7
32 or less	MDL	3, 3 2/10, 4, 5, 6 1/4, 8, 10, 15, 20, 25 or 30

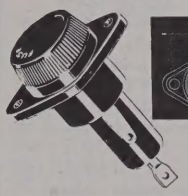
MDL	Net Ea.	Net Ea. Per 100
1/100 or 1/32	.198	.165
1/16 to 1	.162	.135
1 1/4 to 2	.14	.125
2 1/2 to 30	.12	.10

MDX	Net Ea.	Net Ea. Per 100
1 1/4 to 2	.18	.15
3 to 7	.12	.10

BUSS Panel Mounted FUSEHOLDERS

Series HPC

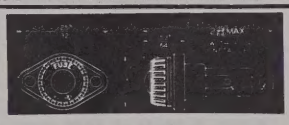
For 13/32 x 1 1/2 inch FUSES

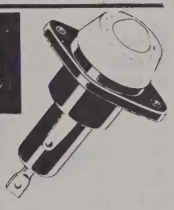


BUSS HPC Fuseholder
for 13/32 x 1½ inch fuses

(AGU, ABU, BAF, BAN, FNM, MDR, KLM, etc.)

	Net Ea.	Net Ea. Per 100
HPC	.35	.32



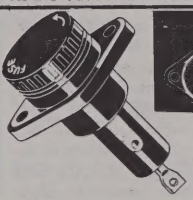


BUSS HPC-C Fuseholder

Like HPC but has transparent knob giving visual indication of blown fuse when indicating fuses are used.

Takes MIN, MIC, FNA.

	Net Ea.	Net Ea. Per 100
HPC-C	.45	.42



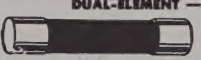
BUSS HPC-D Fuseholder

Like HPC but has "O" rings added to make holder waterproof under 6 foot head of water.

	Net Ea.	Net Ea. Per 100
HPC-D	.74	.69

FUSETRON CERAMIC TUBE FUSES, ¼ x 1¼ inch

DUAL-ELEMENT — SLOW BLOWING TYPE



Test specifications and performance, MDA 1/100 to 2 8/10 ampere same as MDL fuses. 3 to 7 ampere same as MDX fuses. 8 to 30 ampere same as MDL fuses.

Voltage	Symbol	Amperes
250 or less	MDA	1/100, 1/32, 1/16, 1/10, 1/8, 1 5/100, 17 5/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 3/4, 8/10 or 1
125 or less	MDA	1 1/4, 1 1/2, 1 8/10, 2, 2 1/2, 2 8/10, 3, 3 2/10, 4, 5, 6 1/4 or 7
32 or less	MDA	8, 10, 15, 20, 25 or 30

MDA	Net Ea.	Net Ea. Per 100
1/100 or 1/32	.28	.235
1/16 to 2	.23	.19
2 1/4 to 30	.15	.125

BUSS GLASS TUBE FUSES, ¼ x 5/8 inch

Formerly called 1AG

Test specification — carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes
32 or less	AGA	1, 2, 3, 5, 6, 7 1/2, 10, 15, 20 or 30

AGA	Net Ea.	Net Ea. Per 100
1 or 2	.048	.04
3	.042	.035
5, 6, 7 1/2, 10, 15 or 20	.03	.025
30	.036	.03

BUSS GLASS TUBE FUSES, ¼ x 7/8 inch

Formerly called 7AG

Test specification — carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes
32 or less	AGW	6 or 7 1/2

AGW	Net Ea.	Net Ea. Per 100
6 or 7 1/2	.03	.025

NATIONAL RF CHOKES

R-100, R-100U, R-100S, R-100ST

These RF chokes are identical electrically, but differ in mounting provisions. The R-100 employs pigtail leads; the R-100U has pigtail leads and a removable stand-off insulator; the R-100S has cotter-pin lug terminals and a non-removable stand-off insulator; the R-100ST has a 6-32 threaded stud at each end. These chokes are available in 2.5, 5 and 10 millihenry sizes and are rated at 125 milliamperes.

R100 ..... **$ .40 Net Ea.**
R100U ..... **$ .48 Net Ea.**
R100S ..... **$ .48 Net Ea.**
R100ST ..... **$ .46 Net Ea.**

R-300, R-300U, R-300S, R-300ST

These RF chokes are similar in size to R-100 series but have higher current capacity. The R-300U is provided with a removable stand-off insulator at one end. The R-300S has a non-removable stand-off insulator and cotter-pin lug terminals. The R-300ST has a 6-32 threaded stud at each end. Inductance values of 0.5, 1.0, 2.5 and 5.0 millihenries are available with a current rating of 300 milliamperes. R-300, R-300U, R-300S and R-300ST are identical electrically.

R300 ..... **$ .44 Net Ea.**
R300U ..... **$ .48 Net Ea.**
R300S ..... **$ .48 Net Ea.**
R300ST ..... **$ .46 Net Ea.**

R-33

The R-33 series chokes are 2-section RF chokes available in 10, 50, 100 and 750 microhenry sizes. Also available in this series is a single layer solenoid choke of 1 microhenry inductance. All are rated at 100 milliamperes. The chokes are wound on a 5/8" long form and range in diameter up to 5/16" maximum. **$ .40 Net Ea.**

R-175A

The R-175A choke is a revised version of the R-175 choke. This revision has made the reactance of the choke high throughout the 6 meter band as well as the 10, 15, 20, 40 and 80 meter bands. The R-175A choke is suitable for parallel-feed as well as series-feed in transmitters with plate supply up to 3000 volts modulated or 4000 volts unmodulated. Inductance 145 uh., distributed capacity 0.6 mmf., d-c resistance 5 ohms, d-c current 800 ma., voltage breakdown to base 12,500 volts. **$3.56 Net Ea.**

R-50

The R-50 series chokes are 3 and 4-section RF chokes available in 0.5, 1, and 2.5 millihenry sizes. They are rated at 100 milliamperes. The chokes are wound on a 1" long form and have a maximum diameter of 15/32"

R50 ..... **$ .40 Net Ea.**

R-50-1

National NC

A 10 millihenry choke wound on an iron core.

R50-1 ..... **$ .61 Net Ea.**

R-60

The R-60 choke is a high current RF choke (500 milliamperes) available in 2 and 4 microhenry sizes. The choke is 1 1/8" long by 5/16" diameter. **$ .40 Net Ea.**

R-152

For use in the range between 2 and 4 Mc. Ideal for high power transmitter stages operated in the 80 meter amateur band. Inductance 4 m.h., DC resistance 10 ohms, DC current 600 ma. Coils honeycomb wound on steatite core.

$2.01 Net Ea.

R-154, R-154U

For the 20, 40 and 80 meter bands, Inductance 1 m.h., DC resistance 6 ohms, DC current 600 ma. Coils honeycomb wound on steatite core. The R-154U does not have the third mounting foot and the small insulator, but is otherwise the same as R-154. See illustration.

R154 ..... **$2.01 Net Ea.**
R154U ..... **$1.61 Net Ea.**

MILLEN RF CHOKES

General Specifications: 2.5 mH, 250 mA for types 34100, 34101, 34102, 34103, 34104.

Cat. No.	Net Ea.
No. 34100	$ .48
No. 34101	.42
No. 34102	.48
No. 34103	.42
No. 34104	.48

OHMITE Z-144

OHMITE RF PLATE CHOKES

This series of Ohmite single layer wound solenoid radio frequency plate chokes covers the entire frequency range of 3 to 520 megacycles.

Stock No	Operating Range Megacycles	Micro henries	Core Dimensions	Net Ea.
Z-7	3 to 20 Mc.	84.0	6" x 5/16"	$1.10
Z-14	7 to 35 Mc.	44.0	2" x 5/16"	.48
Z-28	20 to 60 Mc.	21.0	1 3/4" x 5/16"	.32
Z-50	35 to 110 Mc.	7.0	1" x 5/32"	.23
Z-144	80 to 200 Mc.	1.8	3/4" x 5/16"	.23
Z-235	160 to 350 Mc.	0.84	3/4" x 5/16"	.23
Z-460	320 to 520 Mc.	0.20	1/2" x 5/32"	.23

Non-magnetic Brackets Furnished with Z-7.
All chokes 1000 ma. rating except Z-14 and Z-28. These are rated at 600 ma.

MILLER

Light Duty Line Filter Chokes

For use in the same applications as our Heavy Duty Line Filter Chokes where the load is of a lighter nature. Chokes are wound on bakelite forms.

Single Line Filter Chokes

For filtering individual and branch circuits.
Dimensions: 1 7/8" x 1 3/4"

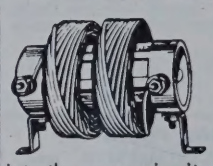
Cat. No.	Amps.	Ohms	Mh	Net Ea.
7825	2	.7	.600	$ .97
7825-3	3	.25	.250	1.03
7825-5	5	.1	.100	1.09
7825-8	8	.05	.050	1.18

Dual Line Filter Chokes

For filtering both sides of single phase circuits.
Dimensions: 3 1/4" x 2 1/8"

Cat. No.	Amps.	Ohms	Mh	Net Ea.
D-7825	2	.7	.600	$1.94
D-7825-3	3	.25	.250	2.06
D-7825-5	5	.1	.100	2.20
D-7825-8	8	.05	.050	2.35

Heavy Duty Line Filter Chokes



For installation in noise producing equipment such as flasher signs, farm lighting plants, motor generators, etc. Also used with radio transmitters to prevent R.F. energy feeding back into the power circuits. Typical circuit diagrams are supplied with each choke. Chokes are duolateral wound on ceramic forms.

Single Line Filter Chokes

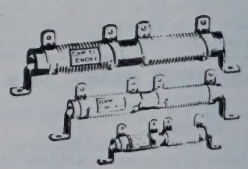
For filtering individual and branch circuits. **Can be wound on order to carry 150 amperes.**
Dimensions: 2 1/2" x 4"

Cat. No.	Amps.	Ohms	Mh	Net Ea.
7826	5	.28	.57	$2.58
7827	10	.15	.37	2.91
7828	20	.08	.20	3.23
7829	30	.05	.13	3.55

Dual Line Filter Chokes

For filtering both sides of single phase circuits.
Dimensions: 4 1/2" x 4"

Cat. No.	Amps.	Ohms	Mh	Net Ea.
D-7826	5	.28	.57	$3.92
D-7827	10	.15	.37	4.53
D-7828	20	.08	.20	5.17
D-7829	30	.05	.13	5.82



OHMITE POWER LINE CHOKES

These units prevent high-frequency currents of radio transmitters, diathermy and therapeutic equipment from going out over the power lines and interfering with nearby radio receiving sets.

Stock No	Total Micro-henries	Amps	Total D.C. Ohms	Core Dimensions	Net Ea.
Z-20	14	5	0.15	4" x 9/16"	$1.51
Z-21	15	10	0.07	6 1/2" x 3/4"	2.54
Z-22	18	20	0.045	8 1/2" x 1 1/4"	3.86
*Z-30	46	20	0.085	8 1/2" x 1 1/4"	5.51

*One section is wound as a second layer over the other.
Non magnetic Brackets Furnished with each choke.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

MILLER CHOKES

Unshielded Chokes

These single section R.F. Chokes are ideally suited for general purpose applications in receiver and filter circuit. Solder lug terminals and single hole mounting. Inductance tal. ±5%.

Air Core Type

Dimensions: 1⅛" diameter x ⅝".

Cat. No.	MH	Ohms	MA	Net Ea.
610	.25	8	125	$ .35
620	.75	17	125	.38
630	1.50	21	125	.38
640	2.50	28	125	.44
650	5.0	41	125	.44
660	7.5	53	125	.47
670	10.0	64	125	.50
680	12.5	74	125	.50
690	15.0	83	125	.53
691	20.0	97	125	.59
692	30.0	120	100	.62
693	60.0	175	100	.71
694	80.0	230	100	.85

Iron Core Type

These chokes are similar in construction to the No. 600 series except that they are wound on powdered iron cores.

Cat. No.	MH	Ohms	MA	Net Ea.
951	.5	6.8	125	$ .59
952	1.0	10.9	125	.65
953	2.5	19.5	125	.68
954	5.0	23.0	125	.76
955	7.5	37.0	125	.82
956	10.0	45.0	125	.85
957	25.0	78.0	100	1.03
958	50.0	130.0	100	1.15
959	75.0	200.0	100	1.29
960	100.0	210.0	100	1.47
961	150.0	268.0	100	1.61

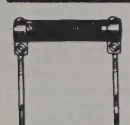
Shielded Chokes

Single section wound R.F. Chokes assembled in round aluminum shield with two spade bolts for mounting. Solder lug terminals.

Iron Core Type

Dimensions: 1¼" dia. x 1" high.

Cat. No.	MH	Ohms	MA	Net Ea.
851	.5	8.6	125	$ .82
852	1.0	11.5	125	.88
853	1.0	22.0	125	.91
854	5.0	31.0	125	1.00
855	7.5	42.0	125	1.03
856	10.0	47.0	125	1.06
857	25.0	100.0	125	1.26
Dimensions: 1⅝" dia. x 1" high.				
858	50.0	160.0	100	1.35
859	75.0	222.0	100	1.53
860	100.0	348.0	100	1.67
861	150.0	520.0	100	1.85



Ceramic Core R.F. Chokes

Dimensions: (form) ¼" diameter x 1½" long.

All chokes are impregnated with a moisture- and fungus resistant varnish. Inductance tolerance: ±5%.

Single Layer Chokes

The following R.F. chokes are solenoid wound. They have a distributed capacity of 0.7 mmf and may be used in ultra-high-frequency receivers and low-power transmitters.

Cat. No.	uH	Ohms	MA	Net Ea.
4528-1	1	.03	300	$ .41
4528	2.5	.09	300	.41
4529	5	.25	300	.41
4529-10	10	.95	300	.41

Progressive Wound Chokes

These chokes, with a distributed capacity of 1 mmf., fill the gap between layer and pi-wound coils. The distributed capacity is lower than that obtainable in sectional wound coils.

Cat. No.	uH.	Ohms	MA	Net Ea.
4515	25	1.6	300	$ .47
4517	50	2.1	300	.47
4519	100	3	300	.47

Multiple Pi Chokes

These Multiple Pi duo-lateral chokes have a low distributed capacity of 1.2-1.3 mmf. The current carrying capacity is comparatively high for this type of choke.

Cat. No.	Mh.	Ohms	MA	Net Ea.
4531-0	.25	8	200	$ .53
4531	.5	12	200	.53
4531-1	1	17	200	.53
4532	1.5	21	200	.53
4537	2.5	28	200	.53
4538	5	42	125	.65
4539	7.5	82	125	.82
4540	10	95	125	.97
4541	25	160	125	1.15
#4537 Bulk packed per 100 —				Net 45.00

R.F. Chokes wound to closer tolerances if required in lots of 100 pieces or more at slightly higher prices.

Ferrite Core R.F. Chokes

A new series of R.F. Chokes taking advantage of the high permeability of ferrite cores. These chokes combine high inductance and low D.C. resistance with a small physical size.

Dimensions of core: ¼" diameter x ⅞" long. 1½" long axial leads.

Cat. No.	mh.	Ohms	ma	Net Ea.
6302	2.5	5.5	200.	$ .59
6304	5	12	200	.73
6306	10	26	125	.88
6308	25	70	75	1.03
6310	50	110	75	1.18

R.F. Chokes with Axial Leads

Dimensions: Phenolic form 3/16" dia. x ¾" long. Iron core form 5/32" dia. x ⅞" long.

Leads are 1½" long. Inductance tolerance: ±5%.

Phenolic Form
Single Layer Windings

Cat. No.	uH.	Ohms	MA	Net Ea.
4602	1	0.05	300	$ .29
4604	1.5	0.08	300	.29
4606	2.4	0.16	300	.32
4608	3.9	0.5	300	.32
4610	6.2	0.75	300	.35
4612	10	1.5	200	.35

Iron Core Form
Single Layer Windings

Cat. No.	uH.	Ohms	MA	Net Ea.
4622	10	0.06	300	$ .38
4624	15	0.12	300	.38
4626	24	0.28	300	.41
4628	39	0.65	300	.41
4630	62	1.0	300	.44
4632	100	2.0	200	.44

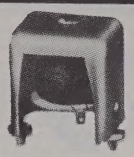
Phenolic Form
3-Section Windings

Cat. No.	Mh.	Ohms	MA	Net Ea.
4642	0.1	4.1	125	$ .44
4644	0.15	5	125	.44
4646	0.24	6.6	125	.44
4648	0.39	8.7	125	.47
4650	0.62	11	125	.47
4651	0.75	13	125	.47
4652	1.0	15	125	.47

Iron Core Form
3-Section Windings

Cat. No.	Mh.	Ohms	MA	Net Ea.
4662	1	7	125	$ .50
4664	1.5	9	125	.53
4666	2.4	12	125	.59
4668	3.9	17	125	.65
4670	6.2	33	75	.73
4672	10	47	50	.88

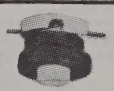
BUD CHOKES



Iron Core RF Chokes

The efficiency of any circuit requiring an R. F. Choke will be improved by utilizing one of these chokes. Each choke has a finely divided molded metallic core. The improved "Q" possible with this construction results from the D.C. resitance of the chokes being from 40 to 50% less for a given inductance than the regular air-core types. Thus the D. C. voltage drop through the choke is considerably less, yet the choking action is equally as good. Windings are made with silk covered enameled wire terminated on convenient soldering lugs, and the chokes are mounted in a small square shield can measuring 1⅜" x 1⅜" x 1⅞".

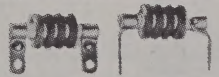
Catalog No.	Inductance mh	D.C. Resistance Ohms	Current Rating M.A.	Net Ea.
CH-1277	1.5	11.5	125	$ .93
CH-1278	2.5	16	125	.96
CH-1279	3.4	19.5	125	1.05
CH-1280	5.5	27.5	125	1.05
CH-1281	8	36	125	1.11
CH-1282	10	42.5	125	1.11
CH-1283	16	53	125	1.23
CH-1284	30	82	100	1.29
CH-1285	60	131	100	1.44
CH-1286	80	163	90	1.53
CH-1287	125	221	90	1.80
CH-294	Shield Can Only			.21



Lattice Wound RF Chokes

For all general purpose applications requiring a high quality choke, this line finds wide acceptance. Each choke is wound from silk covered enameled copper wire on a white ceramic bobbin. The leads are terminated with two convenient solder lugs. Chokes can be mounted with a 6-32 screw through the center of the form, and each winding is thoroughly impregnated against moisture. The wide range of sizes fills practically every choke requirement in standard radio circuits. Choke base diameter is 1⅛" and distance between the ends of the leads 1⅝".

Catalog No.	Inductance mh	D.C. Resistance Ohms	Current Rating M.A.	Height	Net Ea.
CH-1212	2.5	28	125	11/16"	$ .44
CH-1213	3.4	36	125	11/16"	.55
CH-1214	5.5	46	125	11/16"	.55
CH-1215	8	60	125	11/16"	.66
CH-1216	10	65	125	11/16"	.72
CH-1217	16	84	125	11/16"	.75
CH-1218	30	190	100	15/16"	.85
CH-1219	60	279	90	15/16"	.96
CH-1220	80	332	80	15/16"	1.00

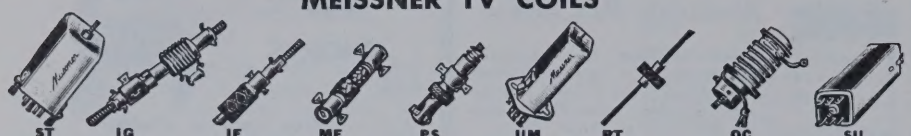


Pie Wound RF Chokes

Each choke has a continuous winding of silk covered enameled copper wire. The pies constututing this winding are wound on a ¼" diameter ceramic core. Chokes are made with both strap and wire leads. The CH-876 is a heavy duty choke intended for circuits such as transmitter plate circuits, where high currents are present. All these chokes have an overall length of 1½"

Catalog No.	Inductance mh	D.C. Resistance Ohms	Current Rating M.A.	Net Ea.
With Strap Leads				
CH-920S	2.5	45	125	$ .48
CH-922S	5.5	60	125	.57
CH-923S	8.0	72	100	.57
CH-924S	10.0	78	100	.81
CH-876S	2.5	16	250	.80
With Wire Leads				
CH-920W	2.5	45	125	$ .48
CH-922W	5.5	60	125	.57
CH-923W	8.0	72	100	.57
CH-924W	10.0	78	100	.81
CH-876W	2.5	16	250	.80

MEISSNER TV COILS



I. F. TRANSFORMERS

Meissner No.	Fig.	Use	Frequency MC	Mounting	Dimensions H.	Dimensions W. x D.	Net Each
17-1001	ST	1st Video Amplifier	Tune 25.3 Trap 27.25	1⅛"	2¼"	1⅛" x 1⅛"	$1.65
17-1002	ST	2nd Video Amplifier	Tune 22.3 Trap 19.75	1⅛"	2¼"	1⅛" x 1⅛"	1.26
17-1003	IF	3rd Video Amplifier	Tune 25.2	⅜" hole	1¾"	⅝" Dia.	.45
17-1004	IF	4th Video Amplifier	Tune 23.4	⅜" hole	1¾"	⅝" Dia.	.45
17-1062	IF	2nd Video Amplifier	Tune 25.7	⅜" hole	1¾"	⅝" Dia.	.90
17-1063	IF	3rd Video Amplifier	Tune 23.4	⅜" hole	1¾"	⅝" Dia.	.90
17-1064	IF	4th Video Amplifier	Tune 25.7	⅜" hole	1¾"	⅝" Dia.	.90
†17-1066	IF	Video Amplifier	Tune 21.5	⅜" hole	1¼"	¾" Dia.	.90
17-1011	ST	Input Sound Amplifier	Tune 21.25	1⅛"	2¼"	1⅛" x 1⅛"	1.26
17-1012	ST	Output Sound Amplifier	Tune 21.25	1⅛"	2¼"	1⅛" x 1⅛"	1.26
17-1013	ST	Sound Discriminator	Tune 21.25	1⅛"	2¼"	1⅛" x 1⅛"	1.65
17-1020	ST	Converter	21.8	1⅛"	2¼"	1⅛" x 1⅛"	1.65
17-1025	ST	Sound Takeoff	4.5	1⅛"	1¾"	⅜" x ⅜"	1.65
17-1031	ST	Sound Takeoff	4.5	1⅛"	1¾"	¾" x ⅜"	.75
17-3402	IF	Sound Takeoff	4.5	⅜" hole	1¾"	⅞" Dia.	.75
17-3400	IF	Sound Takeoff	4.5	⅜" hole	1¾"	⅞" Dia.	1.75
17-3401	IF	Sound Takeoff	4.5	⅜" hole	1¾"	⅞" Dia.	.75
16-3445	ST	Interstage Sound	4.5	⅜"	2"	¾" x ¾"	.75
17-3412	IF	Interstage Sound	4.5	⅜" hole	1¾"	⅞" Dia.	.75
17-1021	ST	Input or Interstage Sound	4.5	1⅛"	2¼"	1⅛" x 1⅛"	1.65
17-1071	ST	Interstage Sound	4.5	1⅛"	1¾"	¾" x ⅜"	1.65
17-1023	ST	Discriminator	4.5	1⅛"	2"	1⅛" x 1⅛"	1.80
17-1033	ST	Ratio Detector	4.5	1⅛"	2¼"	1⅛" x 1⅛"	1.80
17-1043	ST	Ratio Detector	21.25	1⅛"	1¾"	1⅛" x 1⅛"	1.98
17-3493	ST	Ratio Detector	4.5	1⅛"	2½"	1⅛" x 1⅛"	1.98
17-3497	UM	Ratio Detector	4.5	¾" x 1¼"	2½"	⅞" x ¾"	1.98
17-4522	IF	2nd Video Amplifier	Tune 43	⅜" hole	1⅝"	⅝" Dia.	.75
*17-4523	IF	3rd Video Amplifier	Tune 45.5	⅜" hole	1¼"	⅝" Dia.	.75
*17-4524	IF	4th Video Amplifier	Tune 44.5	⅜" hole	1¼"	⅝" Dia.	.75
17-4500	IG	Converter	Tune 43.1 Trap 41.6	⅜" hole	2½"	⅝" Dia.	1.50
17-4501	IG	1st Video Amplifier	Tune 42.5 Trap 40	⅜" hole	2½"	⅝" Dia.	1.50
17-4502	IG	2nd Video Amplifier	Tune 45.75 Trap 47.25	⅜" hole	2½"	⅝" Dia.	1.50
17-4503	ST	3rd Video Amplifier	Tune 43.3 Trap 40	1⅛"	2¼"	1⅛" x 1⅛"	1.80
17-4531	ST	1st Video Amplifier	Tune 44.0 Trap 39.25	1⅛"	2¼"	¾" x ⅞"	1.80
17-4504	ST	4th Video Amplifier	Tune 44.2 Trap 47.5	1⅛"	2¼"	1⅛" x 1⅛"	1.80
‡17-4521	ST	1st Video Amplifier	Tune 45.75	1⅛"	2¼"	¾" x ⅞"	.75

*Shunt 56K ohms †Pri. Shunt 22K ohms ‡Shunt 27K ohms

PERMEABILITY TUNED SOUND AND CATHODE TRAPS (FIG. IF)

Meissner No.	Use	Freq. MC	Shunt	Mtg.	Net Each
20-1045	Cathode Trap	41.8	22K 36μμfd	⅜" hole	$1.20
20-1004	Sound Trap	4.5	4 μμfd	⅜" hole	.75
20-1005	Sound Trap	4.5	10 μμfd	⅜" hole	1.20
20-1021	Cathode Trap	21.25	47 μμfd	⅜" hole	1.20
20-1086	Trap	27.25	15 μμfd	⅜" hole	1.20

TUNABLE CHOKES (FIG. IF)

Meissner No.	Frequency MC	Mounting	Dimensions H.	Dimensions Dia.	Net Each
19-1021	21-25 with 10 μμfd	⅜" hole	1¾"	½"	$0.60
19-1020	21-25 with 10 μμfd	⅜" hole	1¾"	½"	.60

ADJUSTABLE VIDEO PEAKING COILS (FIG. FM)

These Miniature Variable Inductance Coils permit exact frequency adjustment in Video Amplifier Stages.

Meissner No.	Minimum Inductance	Maximum Inductance	Mtg.	Dimensions H.	Dimensions D.	Net Each
19-1920	65 μh	115 μh	Leads	1"	½"	$0.72
19-1921	115 μh	195 μh	Leads	1"	½"	.72
19-1922	195 μh	325 μh	Leads	1"	½"	.72
19-1923	325 μh	500 μh	Leads	1"	½"	.72

HIGH VOLTAGE OSCILLATOR COILS (FIG. OC)

Designed for TV receivers using separate high voltage power supplies and applicable to the construction of inexpensive H. V. DC sources.

Meissner No.	Use	Mtg.	Net Each
19-3204	10 KV at 50 μa with recommended circuit, 8 KV at 400 μa	1¼"	$5.10
19-3210	30 KV at 50 μa with recommended circuit	1¼"	8.10

HORIZONTAL SYNC TRANSFORMERS AND COILS

For horizontal sweep oscillator and automatic frequency control circuits.

Meissner No.	Use	Mounting	Net Each
†20-1400	Horizontal OSC and AFC discriminator (Sync. Lock)	1¾"	$1.68
†20-1401	Horizontal OSC and Sync. control (Sync. Guide)	1¾"	1.35
†20-1402	Horizontal OSC and Sync. stabilizer (Sync. freq. and phase)	1¾"	1.65
‡19-1575	14-28 MH horiz. OSC ringing coil	¼" hole	1.35
‡19-1576	10-50 MH horiz. OSC ringing coil	¼" hole	1.35
‡19-1577	90-130 MH horiz. OSC coil	¼" hole	1.35

†Fig. SU. ‡Fig. PS. ‡Fig. IF.

VIDEO PEAKING COILS (FIG. RT)

Provided with tinned wire leads for ease of connection.

Meissner No.	Inductance μh	Shunt Resistance	Dimensions Form Length	Net Each
19-3001	.8	None	¾"	36c
19-3036	36	None	¾"	
19-4036	36	10 Meg.	¾"	
19-4060	60	22 K	¾"	
*19-4073	73	10 Meg.	¾"	
19-3075	75	None	¾"	
19-3093	93	None	¾"	
19-4093	93	10 Meg.	¾"	
19-3100	100	None	¾"	
19-4121	120	8.2 K	¾"	
19-4120	120	12 K	¾"	
19-4122	120	22 K	¾"	
19-3125	125	None	¾"	
19-4125	125	22 K	¾"	
19-4160	160	22 K	¾"	36c
19-3160	160	None	¾"	
19-3180	180	None	¾"	
19-4180	180	39 K	¾"	
19-4200	200	10 K	¾"	
19-3250	250	None	¾"	
19-4250	250	22 K	¾"	
19-4251	250	10 Meg.	¾"	
19-3300	300	None	¾"	
19-4412	412	8.2 K	¾"	
19-3500	500	None	¾"	36c
19-4500	500	10 Meg.	¾"	
19-3660	660	None	¾"	
19-4840	840	3.3 K	¾"	
19-5100	1000	10 K	¾"	

*Fig. ST. All others, Fig. RT.

LINEARITY AND WIDTH CONTROLS (FIG. IF)

Meissner No.	Inductance Range MH	DC Res. Ohms	Mountins	Net Each
20-1024	0.05-0.3	.194	⅜" hole	$0.84
20-1025	0.05-0.3	.51	⅜" hole	.84
20-1026	5.2-20	34.5	⅜" hole	.84
20-1027	0.8-3.7	17	⅜" hole	.84
*20-1028	4.2-30	22	⅜" hole	1.05
20-1029	2.5-17	18	⅜" hole	.84
20-1031	0.17-0.61	1.	⅜" hole	.68
20-1032	0.65-2.3	8.3	⅜" hole	.84
20-1033	4.3	7	⅜" hole	.84
20-1034	10-50	40	⅜" hole	.84
*20-1035	2.6-7.5	1.2	⅜" hole	
	4.0-28	32		1.05

*AGC Winding.

MILLER

24 MC Unshielded Picture I.F. Transformers

For use as replacement units in television receivers where unshielded coils are called for and standard circuitry is employed. Mounting clip to fit ⅝" hole in chassis.

Shielded I.F. trans. are ¾" sq. x 2" high.
Maximum Dimensions: 2½" long.

Cat. No.	Description	Trap	Net Ea.
6245	25.5 MC First I.F.	27.25 MC	$1.47
6246	22 MC Second I.F.	21.2 MC	1.47
6247	21.25 MC Cathode Trap		1.47
6248	24.5 MC Video Det. I.F.		.88
6249	21-25 MC Bifilar Wound I.F.		.88
6250	25-29 MC Bifilar Wound I.F.		.88
6251	21-25 MC Bifilar I.F. Shielded		1.32
6252	25-29 MC Bifilar I.F. Shielded		1.32
6253	21-25 MC Bifilar I.F.	20-23 MC	1.61
6254	25-29 MC Bifilar I.F.	24-29 MC	1.61

MILLER

Horizontal Oscillator & Sync. Control Coils

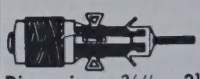
±6194 Sync. Lock
±6182 Sync. Guide
±6183 Sync. Freq. & Phase

Dimensions: 1 7/16"x1 7/16"x2½" high.
6212 Unshielded, Mounting hole 5/16"
6211 and 6324 Unshielded, Mounting hole 7/16"
6183 may be reversed in shield for top or bottom mounting.

Cat. No.	Item	Net Ea.
6194	Osc. & A.F.C. Discrim. Trans.	$1.61
6182	Osc. and Sync. Control Coil	1.32
6183	Osc. and Sync. Stabilizer Coil	1.61
6210	Sync. Stabilizer Coil 16-42 mh	1.32
6211	Sync. Stabilizer tapped 16-42 mh	1.32
6212	Horiz. Osc. tapped 12-35 mh	1.32
6324	Horiz. Osc. tapped 60-130 mh	1.32

MILLER

Linearity & Width Controls



Dimensions: ¾" x 2½" Max.

Cat. No.	Inductance Range	Net Ea.
6313	.50- 5.0 Mh	$ .88
6314	2.0 -18. Mh	1.03
6315	4.0 -30 Mh	1.06
6316	4.0 -30 Mh with A.G.C.	1.32
6317	3.2 - 9.0 Mh with A.G.C.	1.32
6318	.20- 3.0 Mh	.88
6319	15 -60 Mh	1.32
6320	.20- 3.0 Mh tapped	.88
6321	1.0 - 5.0 Mh tapped	.88
6322	1.5 -10 Mh	1.03
6323	.50- 5.0 Mh tapped	.88
6324	60.-130 Mh tapped	1.32
6195	.185-1 Mh	.73
6196	.054- .245 Mh	.64
6196-A	.054- .50 Mh tapped	.73
6197	.55 -2.3 Mh tapped	.73
6198	.170- .61 Mh	.64
6199-A	1.3 -4.1 Mh tapped	.76
6199-B	.50 -1.7 Mh	.73

Video Peaking Coils, Filament Choke

No. 6175 Filament Choke—5/32" dia. x 7/8" long; Video Peaking Coils—3/16" dia. x ½" long.

Cat. No.	Use	—uhy	Resistor	Net Ea.
6175	Filament	0.8	None	$ .29
6152	Peaking	20	None	.29
6176	Peaking	36	None	.29
6110	Peaking	60	None	.29
6172	Peaking	73	None	.35
6177	Peaking	93	None	.35
6112	Peaking	100	None	.35
6178	Peaking	120	22K	.35
6153	Peaking	120	None	.35
6120	Peaking	155	None	.35
6179	Peaking	180	39K	.35
6180	Peaking	180	None	.35
6154	Peaking	200	None	.35
6173	Peaking	250	22K	.35
6181	Peaking	250	None	.35
6130	Peaking	275	None	.35
6155	Peaking	300	None	.35
6132	Peaking	330	None	.35
6134	Peaking	375	None	.35
6136	Peaking	420	None	.35
6138	Peaking	470	None	.35
6174	Peaking	500	None	.35
6144	Peaking	550	None	.35
6146	Peaking	600	None	.35
6148	Peaking	700	None	.35
6156	Peaking	800	None	.35
6157	Peaking	950	None	.35

"40 MC" TV Picture I.F. Transformers

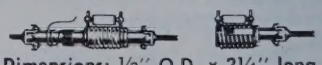
Converter transformer and 1st pix I.F. grid transformer have 75-ohm link winding.

Used in R.C.A. current models.

Dimensions: ⅞"x⅞"x2¼" high.

Cat. No.	Description	Trap	Net Ea.
6215	Converter I.F. Trans.		$1.47
6216	1st Pix I.F. Grid Trans.	39.25 MC	1.76
6217	1st Pix I.F. Plate Trans.	41.25 MC	1.76
6218	2nd Pix I.F. Grid Trans.	47.25 MC	1.61

Unshielded



Dimensions: ½" O.D. x 2¼" long.

			Net Ea.
6219	3rd-4th & 5th I.F.	41.75-45.75 MC	$ .73
6220	41-45 MC Converter I.F.		.73
6221	43.5 MC First I.F.	41.25 MC	1.47
6222	45.5 MC Second I.F.	47.25 MC	1.47
6223	40.0 MC Third I.F.	39.25 MC	1.47
6224	44 MC Fourth I.F.		.82
6225	41-45 MC I.F., Single Winding		.91
6226	Hi Q Trap	40-46 MC	.82

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Universal I.F. Transformers

For general replacement purposes in auto receivers and many types of household and portable receivers.

Dimensions: 1¼" square x 2½" high.

Cat. No.	Freq.	KC Range	Use	Net Ea.
312-H1	262	250-275	Input	$1.03
312-H2	262	250-275	Interstage	1.03
312-H4	262	250-275	Output	1.03
312-H6	262	250-275	Output & Filter	1.56
312-C1	455	440-470	Input	1.03
312-C2	455	440-470	Interstage	1.03
312-C4	455	440-470	Output	1.03
312-C6	455	440-470	Output & Filter	1.56

Type No. 412 Iron Core Transformers

Dimensions: 1¼" square x 2½" high.

Cat. No.	Freq.	KC Range	Use	Net Ea.
412-H1	262	250-275	Input	$1.41
412-H2	262	250-275	Interstage	1.41
412-H4	262	250-275	Output	1.41
412-C1	455	440-470	Input	1.41
412-C2	455	440-470	Interstage	1.41
412-C4	455	440-470	Output	1.41

Replacement I.F. Transformers

These transformers are an essential part of the stock of every serviceman and dealer. In many cases they will give better performance than the original transformer. These transformers may be used as replacements in most makes of receivers using transformers of the same physical size. Dimensions: 1⅜" square x 2⅛" high. #6/32 spade bolt mounting.

Cat. No.	Freq.	KC Range	Use	Net Ea.
512-H1	262	250-275	Input	$1.41
512-H2	262	250-275	Interstage	1.41
512-H3	262	250-275	Full-Wave	1.41
512-H4	262	250-275	Half-Wave	1.41
512-C1	455	450-475	Input	1.41
512-C2	455	450-475	Interstage	1.41
512-C3	455	450-475	Full-Wave	1.41
512-C4	455	450-475	Half-Wave	1.41
512-W1	1500	1400-1600	Input	1.41
512-W2	1500	1400-1600	Interstage	1.41
512-W3	1500	1400-1600	Full-Wave	1.41
512-W4	1500	1400-1600	Half-Wave	1.41

Iron Core Transformers

Dimensions: 1⅜" square x 3¼" high. #6/32 spade bolt mounting.

Cat. No.	Freq.	KC Range	Use	Net Ea.
612-K1	175	165-185	Input	$2.06
612-K2	175	165-185	Interstage	2.06
612-K3	175	165-185	Full-Wave	2.06
612-K4	175	165-185	Half-Wave	2.06
612-H1	262	250-275	Input	1.70
612-H2	262	250-275	Interstage	1.70
612-H3	262	250-275	Full-Wave	1.70
612-H4	262	250-275	Half-Wave	1.70
612-C1	455	450-475	Input	1.70
612-C2	455	450-475	Interstage	1.70
612-C3	455	450-475	Full-Wave	1.70
612-C4	455	450-475	Half-Wave	1.70

Sub-Miniature I.F. Transformers

Through the use of a Ferrite shell core material these Sub-Miniature I.F. Transformers offer the gain and bandwidth characteristics previously obtained in only larger I.F. assemblies. (For Battery or AC-DC Radios.) Manufactured under patents of and by Automatic Manufacturing Corp.

Dimensions: ½" sq. x 1½" high.

Cat. No.	Item	Net Ea.
10-C1	455 KC Input I.F. Trans.	$1.47
10-C2	455 KC Output I.F. Trans.	1.47

Miniature 1500 KC I.F. Transformers

These transformers are permeability tuned and comparable in performance to standard size components. Expressly designed for use with the new miniature tubes. Supplied with spring clip for mounting to the chassis.

Dimensions: ¾" x ¾" x 2" high.

Cat. No.	Description	Range	Net Ea.
12-W1	Input or Interstage	1400-1600 KC	$1.47
12-W2	Half-wave output	1400-1600 KC.	1.47

Universal Adjustable Oscillator Coil

These adjustable iron core oscillator coils are for general replacement use.

Dimensions: ⅝" x 1½" high.

Cat. No.	Use	Freq. Range	Net Ea.
71-OSC	Oscillator Stage (I.F. 100-550 KC)	R.F. 500-1800 KC	$1.18

Midget I.F. Transformers

Dimensions: 1⅛" square x 2" high. #6/32 spade bolt mounting.

Air Core Transformers

Cat. No.	Freq.	KC Range	Use	Net Ea
112-H1	262	250-275	Input	$1.41
112-H2	262	250-275	Interstage	1.41
112-H3	262	250-275	Full-Wave	1.41
112-H4	262	250-275	Half-Wave	1.41
112-H6	262	250-275	Output Stage & Filter	1.56
112-C1	455	450-475	Input	1.41
112-C2	455	450-475	Interstage	1.41
112-C3	455	450-475	Full-Wave	1.41
112-C4	455	450-475	Half-Wave	1.41
112-W1	1500	1400-1600	Input	1.41
112-W2	1500	1400-1600	Interstage	1.41
112-W3	1500	1400-1600	Full-Wave	1.41
112-W4	1500	1400-1600	Half-Wave	1.41

Iron Core Transformers

Cat. No.	Freq.	KC Range	Use	Net Ea.
012-K1	175	165-185	Input	$1.61
012-K2	175	165-185	Interstage	1.61
012-K3	175	165-185	Full-Wave	1.61
012-K4	175	165-185	Half-Wave	1.61
012-H1	262	250-275	Input	1.56
012-H2	262	250-275	Interstage	1.56
012-H3	262	250-275	Full-Wave	1.56
012-H4	262	250-275	Half-Wave	1.56
012-C1	455	450-475	Input	1.56
012-C2	455	450-475	Interstage	1.56
012-C3	455	450-475	Full-Wave	1.56
012-C4	455	450-475	Half-Wave	1.56

Miniature I.F. Transformers

Supplied with a snap spring mounting clip which may be installed through suitable holes in the chassis. Also furnished is an adapter plate for use over a standard tube socket hole.

Dimensions: only ¾" square x 2"high. Manufactured under patents of and by Automatic Manufacturing Corp.

Cat. No.	Item	Net Ea.
12-H1	262 KC Input I.F. Trans	$1.47
12-H2	262 KC Output I.F. Trans.	1.47
12-H6	262 KC Output I.F. Trans. with diode filter capacitors	1.56
12-C1	455 KC Input I.F. Trans.	1.29
12-C2	455 KC Output I.F. Trans.	1.29
12-C6	455 KC Output I.F. Trans. with diode filter capacitors	1.38
12-C7	455 KC Input I.F. Trans. For Battery Radios	1.29
12-C8	455 KC Output I.F. Trans. For Battery Radios	1.29
12-C9	455 KC Input I.F. Trans. For AC-DC Radios	1.29
12-C10	455 KC Output I.F. Trans. For AC-DC Radios	1.29
13-W1	1500 kc Input or Interstage Trans.	1.47
13-W2	1500 kc Output Trans.	1.47
1463	10.7 MC Input or Interstage	1.61
1464	10.7 MC Discriminator	1.94
1465	10.7 MC Ratio Detector	1.94

Permeability Tuned Transformers

Miller permeability tuned intermediate frequency transformers are recommended for all applications where a high degree of frequency stability and operation under humid conditions will be encountered.

Dimensions: 1⅜" square x 3¼" high. #6/32 spade bolt mounting.

Cat. No.	Freq.	KC Range	Use	Net Ea.
912-H1	262	250-275	Input	$2.35
912-H2	262	250-275	Interstage	2.35
912-H3	262	250-275	Full-Wave	2.35
912-H4	262	250-275	Half-Wave	2.35
912-C1	455	450-475	Input	2.35
912-C2	455	450-475	Interstage	2.35
912-C3	455	450-475	Full-Wave	2.35
912-C4	455	450-475	Half-Wave	2.35
912-W1	1500	1400-1600	Input	2.35
912-W2	1500	1400-1600	Interstage	2.35
912-W3	1500	1400-1600	Full-Wave	2.35
912-W4	1500	1400-1600	Half-Wave	2.35

FM I.F. Trans. (10.7 MC)

These permeability tuned 10.7 MC intermediate frequency transformers are assembled in aluminum shields 1⅛" square x 2⅛" high. Mounting is by two #6-32 spade bolts on 1-1/16" centers. Three interstage transformers Cat. No. 1451 are usually required when followed by a discriminator transformer Cat. No. 1452, while two may be sufficient in conjunction with a ratio detector transformer

Cat. No.	Item	Net Ea.
1451	10-7 MC Interstage Trans.	$1.41
1452	10.7 MC Discriminator Trans.	1.94
1453	10.7 MC Ratio Detector Trans.	1.94

4.5 MC Intercarrier Sound I.F. Components

Dimensions 1466-67-68: 1⅛"x1⅛" x2⅛" high.
#1469, 1470 and 1480 Unshielded, Mounting hole ⅞"
1470-A and 1481 ¾" x ¾" x 2" h
±1498 1⅜" x 1⅜" x 2½"high

Cat. No.	Item	Freq.	Net Ea.
1466	Input or Inter. I.F. Trans.	4.5 MC	$1.41
1467	Sound Discrim. Trans.	4.5 MC	1.76
1468	Sound Ratio Det. Trans.	4.5 MC	1.94
1469	Sound Pick Off Coil	4.5 MC	.73
1470	Sound Trap Unshielded	4.5 MC	.79
1470-A	Sound Trap Shielded	4.5 MC	.97
1480	Quadrature Coil	4.5 MC	.73
1481	Quadrature Coil Sh'l'd.	4.5 MC	.97
1498	Sound Ratio Det. Trans.	4.5 MC	1.94

4.5 MC Miniature Intercarrier Sound I.F. Transformers

Clip Mounting
Dimensions: ¾" square by 2" high. Shell Core Permeability tuned Manufactured under patents of and by Automatic Manufacturing Corp.

Cat. No.	Item	Net Ea
6203	4.5 MC Input or Interstage	$1.61
6204	4.5 MC Discriminator	1.94
6205	4.5 MC Ratio Detector	1.94

Miniature 44 MC Picture Trans.

Converter and 1st pix I.F. Grid transformer have 75 ohm link winding.

Dimensions: ¾" Square x 2" high.

Manufactured under patents of and by Automatic Manufacturing Corp.

Cat. No.	Description	Trap	Net Ea.
6230	Converter I.F.		$1.41
6231	44 MC First I.F.		1.41
6232	42.5 MC Second I.F.	41.25 MC	1.17
6233	45.5 MC Third I.F.	47.25 MC	1.41
6234	44 MC Fourth I.F.		1.03

Converter and Picture I.F. Transformers

Dimensions: ⅞" x ⅞" x 2¼" high.

Cat. No.	Description	Trap	Net Ea.
6185	21.8 MC Conv. I.F. Trans.	21.25 MC	$1.61
6186	25.3 MC 1st Pix I.F. Trans.	27.25 MC	1.61
6187	22.3 MC 2nd Pix I.F. Trans.	19.75 MC	1.24

Picture I.F. Inductors Unshielded

Dimensions: ½" max. o.d. x 1½" long.

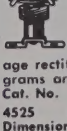
Cat. No.	Description	Freq.	Net Ea.
6188	3rd Pix I.F. Trans.	25.2 MC	$ .73
6189	Video Detector I.F. Trans.	23.4 MC	.73
6193	Cathode Sound Trap	21.25 MC	1.18
6171	Tunable Choke	21-25 MC	.73
6171A	Tunable Choke	25-29 MC	.73

21.25 MC Television Sound I.F. Transformers

Dimensions:
6170, 6190 and 6191 ⅞" sq. x 2¼" hi
6184 and 6192 1⅛"x1⅛"x2½" high.

Cat. No.	Item	Freq.	Net Ea.
6190	1st Sound I.F. Trans.	21.25 MC	$1.41
6191	2nd Sound I.F. Trans.	21.25 MC	1.41
6192	Sound Disc. Trans.	21.25 MC	1.61
6184	Sound Ratio Det. Trans.	21.25 MC	1.94
6170	Sound Disc. Trans.	21.25 MC	1.47

R.F. Transformer for HV Power Supply



These R.F. power supply transformers make an inexpensive source of high voltage. Two types are available, the 4525 for voltages to 5000 DC, and the 4526 for voltages to 10,000 DC (or 30,000 DC) in a voltage rectifier tripler circuit). Typical circuit diagrams are supplied with each coil.

Cat. No.	Item	Net Ea.
4525	H.V. R.F. Trans. (to 5 KV) Dimensions: 1¼" dia. x 3¾" high.	$4.85
4526	H.V. R.F. Trans. (to 30 KV) Dimensions: 2¼" dia. x 6" high.	8.09

Transistor I.F. Transformers

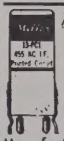
These transformers have been designed for use with the Raytheon Transistor type CK760. These transformers are equivalent to the Automatic EXO3015 specified on the data sheet supplied by Raytheon describing their transistors type CK-760 and CK761.

(Manufactured under patents of and by Automatic Manufacturing Corp.)

Dimensions: ½" sq. x ¾" high.

Cat. No.	Item	Impedance	Net Ea.
2041	455 kc	Pri. 25 K Sec. 600	$1.61

Miniature I.F. Transformers for Printed Circuits



These transformers are electrically the same as our regular 12-C1 and 12-C2 K-Tran line. They differ physically in the type of mounting and terminal lugs.

Manufactured under patents of and by Automatic Manufacturing Corp.

Cat. No.	Item	Net Ea.
13-PC1	455 kc Input I.F. Transformer	$1.41
13-PC2	455 kc Output I.F. Transformer	1.41

TV Antenna Coupling Transformers

Matches antenna impedance to line or line to T.V. receiver. Signal input may be improved as much as four times. Housed in impregnated, weather-tight aluminum shield.

Dimensions: ¾"x¾"x1⅜" high.

Cat. No.	Impedance Ratio	Net Ea.
6161	52/300 or 300/52 ohms	$1.62
6162	72/300 or 300/72 ohms	1.62
6201	450/300 or 300/450 ohms	1.62

Miniature Adjustable R.F. Coils

These high Q adjustable iron core coils are for general replacement use.

Dimensions:
½" dia. x 1½" long (Nos. 70-A and 70-RF).
½" dia. x 1⅛" long (Nos. 69-OSC and 70-OSC).

Cat. No.	Use	Freq. Range	Net Ea.
70-A	Antenna Stage	540-1600 KC	$ .88
70-RF	R.F. Stage	540-1600 KC	.88
70-OSC	Oscillator Stage	540-1600 KC	.88
Has pri. and tapped sec. (I.F. 100-550 KC)			
69-OSC	Oscillator Stage	540-1600 KC	.88
Capacity coupled type (100-550 KC)			

Midget R. F. Coils

(Adjustable Inductance)

Particularly recommended for aircraft, marine and mobile equipment and general custom receiver construction. Coils are designed for use with standard 365 mmfd. tuning condenser.

Dimensions: 1⅛" square x 2" high.

Broadcast Band 540-1700 KC

Cat. No.	Use	I.F. Freq.	Net Ea.
A-320-A	Antenna		$1.15
A-320-RF	Interstage		1.15
A-320-M	2-coil Osc.	132 KC	1.15
A 320-C	2-coil Osc.	455 KC	1.15
A-321-M	Tapped Osc.	132 KC	1.15
A-321-C	Tapped Osc.	455 KC	1.15

Marine & Aircraft Band 2100-6300 KC

B-320-A	Antenna		1.15
B-320-RF	Interstage		1.15
B-320-M	2-coil Osc.	132 KC	1.15
B-320-C	2-coil Osc.	455 KC	1.15
B-321-M	Tapped Osc.	132 KC	1.15
B-321-C	Tapped Osc.	455 KC	1.15

Short Wave Band 6.0-18 MC

C-320-A	Antenna		1.15
C-320-RF	Interstage		1.15
C-320-C	2-coil Osc.	455 KC	1.15
C-321-C	Tapped Osc.	455 KC	1.15

Universal Replacement Coils

(Permeability Tuned)

This series of variable inductance iron core coils are well suited for general replacement. Adjusted to cover the standard broadcast band with a tuning condenser having a maximum capacity of between 250 and 450 mmfd. The oscillator coils may be used with any I.F. amplifier operating in the 100 to 550 KC range.

Unshielded Dimensions: ⅞" diameter x 2" hi "L" mtg. bracket.

Cat. No.	Use	Freq. Range	Net Ea.
72-A	Antenna Stage	500-1800 KC	$1.29
72-RF	R.F. Stage	500-1800 KC	1.29
72-OSC	Oscillator Stage (see text above)		1.29

Shielded Dimensions: 1¾" square x 2½" hi

Cat. No.	Use	Freq. Range	Net Ea.
73-A	Antenna Stage	500-1800 KC	$1.61
73-RF	R.F. Stage	500-1800 KC	1.61
73-OSC	Oscillator Stage (see text above)		1.61

COIL FORMS

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

MILLEN

MIDGET COIL FORMS

Made of low loss mica filled brown bakelite. Guide funnel makes for easy threading of leads through pins.

	Net Ea.
No. 45000	$ .39
No. 45004	.51
No. 45005	.51

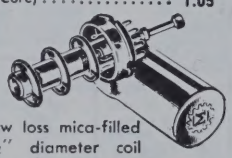
PERMEABILITY TUNED CERAMIC FORMS

In addition to the popular shielded plug-in permeability tuned forms, 74000 series, the 69040 series of ceramic permeability tuned unshielded forms are available as standard stock items. Winding diameters and lengths of winding space are 13/32 x 7/32 for 69041–2; 1/4 x 3/8 for 69043–7–8; 1/2 x 1 1/16 for 69045–6; 3/16 x 3/16 for 69044.

	Net Ea.
No. 69041—(Copper Slug)	$ .84
No. 69042—(Iron Core)	.84
No. 69043—(Iron Core)	.84
No. 69044—(Copper Slug)	.84
No. 69045—(Copper Slug)	1.05
No. 69046—(Iron Core)	1.05
No. 69047—(Copper Slug)	1.05
No. 69048—(Iron Core)	1.05

MILLEN

TUNABLE COIL FORM



Standard octal base of low loss mica-filled bakelite, polystyrene 1/2" diameter coil form, heavy aluminum shield, iron tuning slug of high frequency type, suitable for use up to 35 mc. Adjusting screw protrudes through center hole of standard octal socket.

No. 74001, with iron core . . . . **$2.10 Net Ea.**
No. 74002, less iron core . . . . . **1.68 Net Ea.**

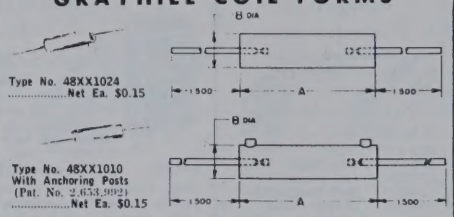
MILLEN

OCTAL BASE AND SHIELD

Low loss phenolic base with octal socket plug and aluminum shield can 1 7/16 x 1 7/8 x 3 13/16.

No. 74400 . . . . . **$1.08 Net Ea.**

GRAYHILL COIL FORMS



These two types of coil forms are molded of mica-filled phenolic in accordance with MIL-P-14, type MFE. Chosen because of the following characteristics:

- Low loss at high frequencies
- High dielectric strength
- Low moisture absorption
- Resistance to fungus growth

Tinned solid copper wire is used for the leads.

PART No.	PART No.	DIM. "A"	DIA. "B"	LEAD WIRE DIA.
48XX1024-1	48XX1010-1	.500"	.125"	.025"
48XX1024-2	48XX1010-2	.625"	.187"	.032"
48XX1024-3	48XX1010-3	.750"	.187"	.032"
48XX1024-4	48XX1010-4	.500"	.250"	.040"
48XX1024-5	48XX1010-5	.750"	.250"	.040"
48XX1024-6	48XX1010-6	1.000"	.250"	.040"
48XX1024-7	48XX1010-7	.500"	.156"	.032"

ICA

LARGE LOW-LOSS "RIBBED" COIL FORMS

For use in 4, 5, and 6-prong sockets. Designed for easy grooving or threading. Size 3 5/8 x 1 5/8".

No.	Net Each
1051—4-Prong	$ .45
1052—5-Prong	.45
1053—6-Prong	.50

ICA SMALL BAKELITE COIL FORMS

Equipped with special rim on top making it easy to insert and pull out of socket. Black Bakelite. Ridge is grooved for color coding.

No.	Net Each
1108B—4-Prong	$ .35
1113B—5-Prong	.37
1114B—6-Prong	.38

ICA SMALL RIBBED BAKELITE COIL FORMS

Rugged and durable, these coil forms are designed for long service. Measures 1 3/8" diameter, 2 1/4" high with molded ribs for low-loss winding and special rim on top. There is a recess in the rim to insert the ICA Round Labels to signify wave lengths.

No.	Net Each
2158—4-Prong	$ .35
2159—5-Prong	.40
2160—6-Prong	.40

NATIONAL

COIL FORMS

XR-50
These mica-filled bakelite coil forms may be wound as desired to provide a permeability tuned coil. The form winding length is 11/16" and the form winding diameter is 1/2 inch. The iron slug is 3/8" dia. by 1/2" long.

$1.04 Net Ea.

XR-51 same but with brass slug

$1.04 Net Ea.

CERAMIC SLUG-TUNED COIL FORMS

XR-70 (grooved for #19 wire, with iron slug) **$1.32 Net Ea.**

XR-71 (same, brass slug)

$1.32 Net Ea.

XR-72 (not grooved, winding length 1", with iron slug)

$1.32 Net Ea.

XR-73 (same, brass slug)

$1.32 Net Ea.

XR-60 (grooved for #26 wire, with iron slug)

$1.32 Net Ea.

XR-61 (same, brass slug)

$1.32 Net Ea.

XR-62 (not grooved, winding length 1 1/4" with iron slug) **$1.32 Net Ea.**

XR-63 (same, brass slug)

High-grade ceramic coil forms conforming to JAN specifications. May be wound as desired to provide a permeability-tuned coil. Extra lugs provided. **$1.32 Net Ea.**

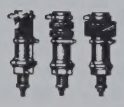
National

NEW PERMEABILITY TUNED CERAMIC COIL FORMS

Small ceramic coil forms designed primarily for high frequency applications and conforming to government specifications. Coil form is Grade L4 ceramic (JAN 1-10); base is silver-plated brass; core is brass or iron. Supplied with two nylon rings to separate coils if more than one is wound on same form. Small holes in rings can be used to secure leads.

TYPE	CORE	"A" DIM.	"B" DIM.	Net Ea.
XR 80	BRASS	1 1/4"	17/64"	$ .87
XR 81	IRON	1 1/4"	17/64"	.87
XR 82	BRASS	1 3/4"	17/64"	.87
XR 83	IRON	1 3/4"	17/64"	.87
XR 90	BRASS	1 1/4"	3/8"	.87
XR 91	IRON	1/4"	3/8"	.87
XR 92	BRASS	1 3/4"	3/8"	.87
XR 93	IRON	1 3/4"	3/8"	.87

MILLER



Adjustable Ceramic Forms and R.F. Coils

Permeability tuned coils wound on silicone impregnated ceramic forms. Hardware necessary for assembly is supplied.

*When ordering forms alone, the type of core should be specified by the addition of a suffix taken from the following.

Suffix	Frequency Range of Core Material
Y	50-1000 kc.
R	1- 30 Mc.
W	30- 300 Mc.

Sub-Miniature Ceramic Form and R.F. Coils

Dimensions (form): 3/16" diameter x 5/8" long.

Cat No.	Microhenries	Net Ea.
4300	Form only	$ .88
4301	0.17- 0.27	1.18
4302	0.27- 0.41	1.18
4303	0.40- 0.65	1.24
4304	0.64- 0.95	1.29
4305	0.94- 1.55	1.32
4306	1.5 - 2.57	1.35
4307	2.5 - 4.40	1.41
4308	4.3 - 7.15	1.41
4309	7.1 - 12.5	1.47
4310	12.4 - 20.3	1.47
4311	20.1 - 32.8	1.47
4312	32.5 - 51.5	1.47
4313	51. -102.	1.52
4314	101. -180.	1.52
4315	178. -300.	1.52

#4300 comes complete with hardware and core*

#4300 Bulk packed per 100 Bulk Net 69.00

Standard Adjustable Ceramic Form and R.F. Coils

Dimensions (form): 3/8" diameter x 1 1/16" long.

Cat. No.	Microhenries	Net Ea.
4400	Form only	$ .97
4403	0.9- 1.6	1.29
4404	1.5- 3.2	1.32
4405	3.1- 6.8	1.35
4406	6.7- 15	1.41
4407	14.8- 31	1.47
4408	30 - 69	1.50
4409	68 - 130	1.56
4410	126 - 250	1.56
4411	245 - 475	1.59
4412	450 - 800	1.59
4413	750 -1400	1.61
4414	1300 -2100	1.61

#4400 comes complete with hardware and core*

#4400 Bulk packed per 100 Bulk Net 84.00

Miniature Adjustable Ceramic Form and R.F. Coils

Dimensions (form): 1/4" diameter x 7/8" long.

Cat No.	Microhenries	Net Ea.
4500	Form only	$ .88
4501	.4- .8	1.18
4502	1.0- 1.6	1.18
4503	1.6- 2.8	1.23
4504	2.8- 5	1.29
4505	5 - 9	1.35
4506	9 - 16	1.41
4507	16 - 24	1.47
4508	24 - 35	1.47
4509	35 - 60	1.47
4511	60 -120	1.47
4512	110 -200	1.53
4513	190 -330	1.53
4514	320 -500	1.53
4514-1	480 -800	1.61

#4500 comes complete with hardware and core*

#4500 Bulk packed per 100 Bulk Net 89.00

AMPHENOL

Low Loss Polystyrene Coil Forms

Molded of AMPHENOL 912-A polystyrene for use in receivers and low-powered transmitters.

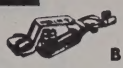
AMPHENOL Number	Description
24	Miniature, for self-tapping screw
24-4P	Plug-in, 4 prong
24-5P	Plug-in, 5 prong
24-6P	Plug-in, 6 prong
24-5H	Plug-in, miniature, 5 prong
24-6H	Plug-in, miniature, 6 prong

Cat. No.	Overall Size L. x D.	Net Ea.
24	1 1/16" x 3/4"	.09
24-4P	2 1/4" x 1 1/4"	.24
24-5P	2 1/4" x 1 1/4"	.24
24-5H	2 1/4" x 1 1/4"	.24
24-6P	1 3/4" x 3/4"	.24
24-6H	1 1/16" x 3/4"	.24

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

TEST CLIPS

A


B

C

MUELLER CLIPS

Battery and Test Clips

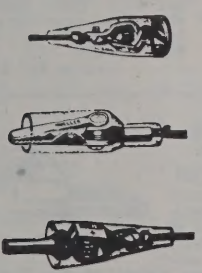
Cat. No.	Fig.	Material	Length	Jaw Spread	Net Ea.	Net Ea. Per 10	Net Ea. Per 100	Net Ea. Per 500	Use Insulator No.
88	A	Phos. Bronze	1 11/32"	5/32"	$ .19	$ .13	$ .11	$ .105	93
45	B	Steel	1 1/2"	3/16"	.07	.05	.042	.04	47
45C	B	Solid Copper	1 1/2"	3/8"	.11	.08	.066	.063	47
48B	B	Steel, Cad. Plated	2"	1/2"	.08	.055	.046	.044	49
48C	B	Solid Copper	2"	1/2"	.13	.09	.078	.074	49
27	B	Steel, Cad. Plated	2 7/16"	5/8"	.11	.08	.067	.064	29
27C	B	Solid Copper	2 7/16"	5/8"	.19	.13	.115	.108	29
24A	B	Steel, Lead Plated	2 7/8"	1"	.16	.11	.095	.09	26
24C	B	Solid Copper	2 7/8"	1"	.28	.20	.17	.16	26
21A	B	Steel, Lead Plated	4"	1 1/4"	.30	.21	.18	.17	23
21C	C	Solid Copper	4 1/2"	1 1/4"	.73	.51	.44	.42	23
11A	C	Steel, Lead Plated	6"	1 3/4"	.84	.59	.50	.48	13
11C	C	Solid Copper	6"	1 3/4"	1.40	.98	.84	.80	13
33C	C	Solid Copper	7 3/4"	2"	2.70	1.90	1.62	1.53	35

D E F G I J K L

Alligator and Crocodile Clips

Cat. No.	Fig.	Material	Length	Jaw Spread	Net Ea.	Net Ea. Per 10	Net Ea. Per 100	Net Ea. Per 500	Use Insulator No.
50C	D	Bronze	2 1/4"	1/2"	$ .25	$ .18	$ .15	$ .14	49
51C	D	Bronze	2 1/4"	1/2"	.19	.13	.11	.105	49
60	E	Steel	2"	5/16"	.07	.046	.04	.038	62
60CS	F	Solid Copper	2"	5/16"	.11	.077	.066	.063	62
60S	F	Steel	2"	5/16"	.08	.053	.045	.043	62
60HS	G	Steel	2 11/32"	5/16"	.12	.084	.072	.07	
60CHS	G	Solid Copper	2 11/32"	5/16"	.16	.11	.093	.088	
63	I	Steel	2 3/16"	5/16"	.30	.21	.18	.168	
63C	I	Solid Copper	2 3/16"	5/16"	.33	.23	.20	.188	
85	J	Steel, Cad. Plated	2 1/8"	5/16"	.08	.053	.046	.044	87
85C	J	Solid Copper	2 1/8"	5/16"	.14	.10	.084	.08	87
85T	K	Steel	2 1/8"	5/16"	.18	.13	.108	.10	87
				Twin Clip					
22	L	Steel, Cad. Plated	2"	1/2"	.10	.07	.06	.0575	

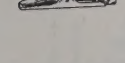
Mueller Insulators for Above Clips



Convenient protection against short circuit and shock. Packed half red and half black to indicate polarity. Constructed so that clip is firmly held.
*These types available in yellow and blue on order.

Cat. No.	Use With Clip Nos.	Net Ea.	Net Ea. Per 10	Net Ea. Per 100	Net Ea. Per 50
13	11A, 11C	$ .72	$ .50	$ .43	$ .41
23	21A, 21C	.39	.27	.23	.22
26*	24A, 24C	.25	.18	.15	.143
29*	27, 27C	.17	.12	.103	.098
35	33C	1.72	1.20	1.03	.98
47*	45, 45C	.07	.05	.042	.04
49*	48B, 48C, 51C, 50C	.10	.07	.06	.0575
62*	60S, 60CS, 60	.07	.05	.042	.04
87*	85, 85C, 85T	.07	.05	.042	.04
93	88	.05	.035	.032	.029

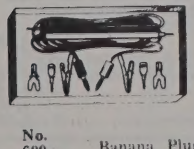
THE MINI-GATOR



Revolutionary miniaturized "alligator". Weighs 1/20 oz. Tiny nose 11/64" O.D. Ample 3/16" jaw spread. Crimping ears. Solder connection. Strong "bite" penetrates corrosion and coatings. The only clip of its kind, the Mini-Gator is indispensable for testing or incorporation into miniaturized and subminiaturized equipment. Skin-tight flexible Vinyl insulator covers completely—has slotted "lip action" tip.

CODE NO.	DESCRIPTION	LENGTH	JAW SPREAD	NET PRICE EACH IN LOTS OF Less than 10	10	100	500
No. 30	MINI-GATOR clip, steel, cadmium plated. Solder connection.	1-1/16"	3/16"	$ .07	$ .046	$ .04	$ .038
No. 30-C	MINI-GATOR clip, solid copper. Solder connection.	1-1/16"	3/16"	.08	.056	.048	.046
No. 32	INSULATOR for No. 30 and 30-C clips.			.11	.076	.063	.06

SMITH ALL PURPOSE TEST LEAD KIT



Supplied with 48" of 5,000 volt heavy duty rubber covered kinkless test lead wire. Plastic handles with solderless or needle tips. Other end supplied with standard type banana plugs which are interchangeable with the phone tips, alligator clips, or spade lugs which are supplied.

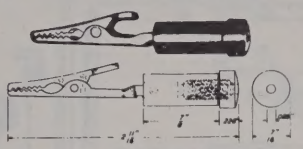
No.		Net Ea.
609	Banana Plug Lead Only	1.18
610	Solderless Prod Kit	1.62
611	Needle Tip Prod Kit	1.62

SMITH LABORATORY INTERCHANGE KIT

Permits use of Alligator Clips, Banana Plugs, Spade Lugs, or Phone Tips interchangeably with each other as required. Consists of one each red and black insulated solderless phone tips with banana jack rear, spade lugs with banana jack rear, combination alligator clip jack, and banana plugs with phone tip jack rear. Durable vinyl kit.

No. 640 Net Ea. $1.91

SMITH
PHONE TIP TO ALLIGATOR CLIP ADAPTER



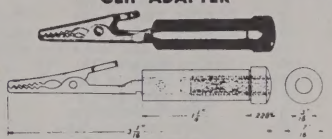
No. 300 steel, cadmium plated alligator clip with No. 202 tip jack in rear of handle enabling the adapting of standard phone tip plugs to alligator clips. Supplied in Red or Black. Specify color.

No. 304 Net Ea. $0.29

Same as above except with No. 360 screw type copper alligator clip.

No. 334 Net Ea. $0.32

SMITH
PHONE TIP OR BANANA PLUG TO ALLIGATOR CLIP ADAPTER



No. 300 steel, cadmium plated alligator clip with No. 206 combination phone tip and banana plug jack in rear of handle enabling the adapting of standard phone tip and banana plugs to alligator clips. Supplied in Red or Black. Specify color.

No. 305 Net Ea. $0.35

Same as above except with No. 360 screw type copper alligator clip.

No. 335 Net Ea. $0.38

SAFE-T-KLIP
Fully Nylon Insulated

The greatest "natural" in a technician's service aid to come along in years—the Safe-T-Klip permits the technician to change position of test leads without danger of shocks, short-circuits or erroneous readings. Fully-insulated with high dielectric strength nylon, the Safe-T-Klip will withstand roughest service and provide years of use. More than pays for itself the first time it is used by saving time, patience and mistakes.

Available in Three Models
(In red or black nylon)

Cat. No.		
	Safe-T-Klip for use with lead wire provides screw terminal or solder. Strain relief type construction.	$.54 Net Each
1410A1	Black	
1410A2	Red	
	Safe-T-Klip for use with banana plug. Slips over plug with perfect electrical and mechanical contact.	
1410C1	Black	
1410C2	Red	
	Safe-T-Klip for use with standard test prod. Slips over .080" prod with perfect electrical and mechanical contact.	
1410B1	Black	
1410B2	Red	

EBY
Insulated Alligator Clip Model 55-70

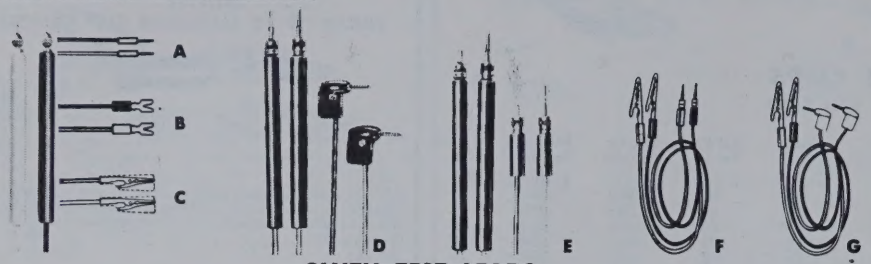
Newly developed, the 55-70 all insulated alligator clip enables the serviceman to insure positive circuit contact without any danger of shocks. The 55-70 alligator clip is designed to be used with most types of test leads. Using the standard .080 prod tip. The test lead prod is inserted into the 55-70 alligator clip for simple connection. Available in two colors, red and black.

Model 55-70R ..... **Net Ea. $.53**
Model 55-70B ..... **Net Ea. .53**

ICA HEAVY DUTY INSULATED SPADE LUGS

Heavy gauge nickel-plated brass spade lug which will fit on screws or binding posts up to 1/4" in diameter. Supplied with tenite sleeve—red or black—unassembled for forced fit after wiring.

	Net Ea.
No. 867R—Red	$ .21
No. 867B—Black	.21

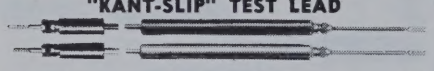


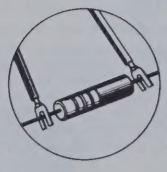
SMITH TEST LEADS

A wide variety of all types of test leads for every application. Made with the finest rubber-covered kinkless test lead wire.

Cat. No.	Fig.	Prod. Type	Handle Size L. — Dia.	Tip Type	Lead Lgth.	Net Ea.
613	A	Fibre Phono Needle	4" — 3/16"	Phone Tip	50"	$ .76
614	B	Fibre Phono Needle	4" — 3/16"	Spade Lugs	50"	.76
615	C	Fibre Phono Needle	4" — 3/16"	Alligator Clip	50"	.82
647	A	Tenite Phono Needle	4" — 3/16"	Phone Tip	50"	.70
648	B	Tenite Phono Needle	4" — 3/16"	Spade Lugs	50"	.70
649	C	Tenite Phono Needle	4" — 3/16"	Alligator Clip	50"	.78
600	A	Fibre Solderless Tip	4" — 3/16"	Phone Tip	50"	.76
601	B	Fibre Solderless Tip	4" — 3/16"	Spade Lugs	50"	.76
602	C	Fibre Solderless Tip	4" — 3/16"	Alligator Clips	50"	.82
617	A	Tenite Solderless Tip	4" — 3/16"	Phone Tip	50"	.70
618	B	Tenite Solderless Tip	4" — 3/16"	Spade Lugs	50"	.70
619	C	Tenite Solderless Tip	4" — 3/16"	Alligator Clip	50"	.76
625	D	Plastic Solderless Tip	4" — 3/8"	Meter Tip	50"	1.17
626	D	Plastic Needle Tip	4" — 3/8"	Meter Tip	50"	1.17
603	E	Plastic Solderless Tip	4" — 3/8"	Solderless Tip Plug	50"	1.11
672	C	Tenite Solderless Tip	4" — 3/8"	Alligator Clip	50"	1.11
675	F	Crocodile Clips with Insulator	.....	Meter Tips	50"	1.02
671	G	Crocodile Clips with Insulator	.....	Insulated Spade Lug	50"	1.02
670	A	Slim Tenite Solder Phone Tip	4" — 5/16"	Solder Phone Tips	50"	.58
678	E	Fibre Sub. Miniature Handle	4" — 1/4"	Threaded Phone Tip	50"	1.11
627	F	Alligator Clip Insulated	.....	Insulated Solderless Tip	48"	.88
628	G	Alligator Clip Insulated	.....	Meter Tip	48"	1.08

SMITH
"KANT-SLIP" TEST LEAD

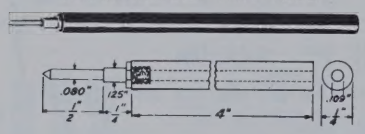




Replaceable chuck and collar holds "U" type tip which is insulated right up to point of use. Solderless phone tips (our #200) at other end. Flexible kinkless rubber-covered test lead wire, 50" long.

No. 695 Net Ea. $1.18

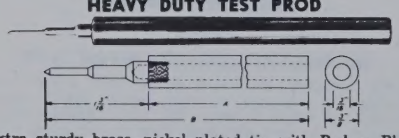
SMITH
SUB-MINIATURE TEST PROD



This miniature brass, nickel plated phone tip and small ¼" O.D. handle is ideally suited for checking all types of sub-miniature equipment. Handle is Red or Black bone fibre. Specify color.

No. 322 Net Ea. $0.24

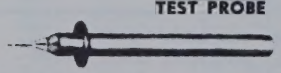
HEAVY DUTY TEST PROD



Extra sturdy brass, nickel plated tip with Red or Black plastic handle. Specify color.

No.	Handle (A)	Overall (B)	Net Ea.
319	4"	5 3/16"	$0.30
329	5½"	6 11/16"	.33

TEST PROBE



"Make Your Own R. F. Probe"

Heavy insulated fibre probe. Large I.D. enables use of Coax cable or 1N-34 crystal for R.F. Probes. Heavy Duty removable tip.

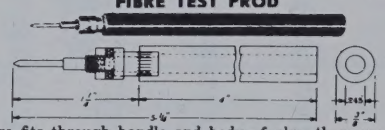
No. 630 Net Ea. $0.71

SMITH
ALLIGATOR CLIP TEST LEADS

Made of very flexible kinkless Red and Black wire with alligator clips at each end.

No.	Wire length	Per Pr.
604	12"	$ .50
605	24"	.56
606	36"	.65
607	48"	.71

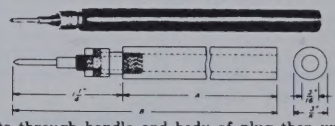
SMITH
FIBRE TEST PROD



Wire fits through handle and body of plug then wrapped around the screw portion and tightened with the knurled nut provided, making soldering unnecessary. (Large I.D. of prod permits use of heavy duty wire). Brass, nickel plated tip with Red or Black handle. Specify color.

No. 323 Net Ea. $0.21

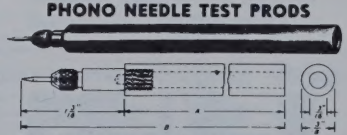
SOLDERLESS TEST PRODS



Wire fits through handle and body of plug then wrapped around the screw portion and tightened with the knurled nut provided making soldering unnecessary. Brass, nickel plated tip with Red or Black plastic handle. Specify color.

No.	Handle (A)	Overall (B)	Net Ea.
302	4"	5¼"	$0.27
303	5½"	6¾"	.30

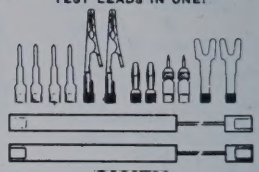
PHONO NEEDLE TEST PRODS



Brass, nickel plated body with steel, nickel plated needle. Removable chuck for replacing broken needles. Sharp pointed needle pierces corrosion or plating on parts to be checked. Red or Black plastic handle. Specify Color.

No.	Handle (A)	Overall (B)	Net Ea.
317	4"	5 3/16"	$0.27
318	5½"	6 11/16"	.30

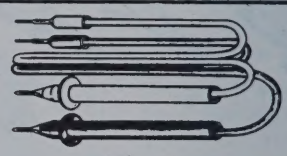
"UNIVERSAL" TEST LEADS
SENSATIONAL INNOVATION — FIFTY TEST LEADS IN ONE!



SMITH
UNIVERSAL TEST LEADS
With Completely Interchangeable Tips

These leads have threaded inserts both at the ends of the prods and tips. Quick interchange can be made using phine tips, alligator clips, banana plugs, needle tips or spade lugs at either end. One set of leads does the work of 9 or 10 ordinary pairs. Set comes complete with one pair prods, 4 phone tips, 2 alligator clips, 2 banana plugs, 2 phone needle tips and 2 spade lugs.

Cat. No. 699.....Net Each $1.91



SMITH
HIGH TENSION TEST LEADS

Sturdy test leads with heavy duty probes and 48" of quality high tension kinkless rubber-covered test lead wire with .248 o.d. insulation. Voltage breakdown at 60 cycles 22,000 volts.

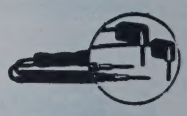
Cat. No.	Type	Net Each
620	With phone tip ends	$1.76
621	With spade lugs	1.76
622	With alligator clips	2.11

SMITH
"SLIM JIM" TEST LEADS

Long slim probes — 7" long overall, fully insulated with vinyl tubing to prevent shocks or shorts. Perfect for those hard-to-get spots. Supplied with molded meter tip ends. 50" long overall.

CAT. NO. 698
Net Per Pair $1.02

ICA PENCIL TYPE TEST LEADS
Finger-Grip Molded Tips



All connections are properly soldered providing low resistance connections vital in all precision tests. The Molded Finger Grip Tips are provided with rivets for easy removal of wire. Length of test leads is 48". Handles are 5" long.

No. 373..... Net Ea. $1.35

NEW ICA SLIM-LINE TEST LEADS

Long vinyl-insulated shaft permits probing in closely wired circuits without fear of shorting. Black and red Tenite handles. 48" wire lead. With molded phone tip plug.

No.	Net Ea.
438	$1.17 pr.

ICA HEAVY DUTY LABORATORY TEST LEADS
Long Slim Handles and Removable Phono Needle Chuck

Extra long slim red and black handles knurled at end for finger grip ease. Handles 6" long. 48" of heavy duty kinkless, flexible rubber wire.

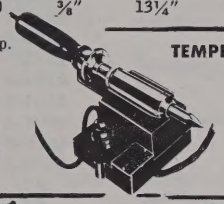
No.	Net Ea.
400—With knurled grip handle. Insulated solderless plug.....	$1.20
388—With alligator clip.....	1.13
391—With spade lugs.....	1.00
392—With non insulated phone tips.....	1.00

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

AMERICAN BEAUTY
SOLDERING IRONS

Cat. No.	Fig.	Wattage	Tip Diam.	Overall Length	Net Ea.	Net Ea. 6 Lot	Cat. No. Element	Net Ea.	Cat. No. Tip	Net Ea.
3118	A	30	1/8"	9 1/4"	$3.33	$3.19	9281	$1.83	3718	$ .16
3120	A	30	3/16"	9 1/4"	3.33	3.19	9280	1.83	3720	.19
3128	A	60	1/4"	12 1/4"	3.67	3.51	9272	1.99	3728	.30
3128A	B	60	1/4"	.....	4.00	3.83	9272A	2.39	3728	.30
3138	C	100	3/8"	12 7/8"	5.83	5.58	9273	2.39	3738	.37
3138X	C	130	3/8"	12 7/8"	6.66	6.38	9273X	3.33	3738	.37
3138XY	C	150	3/8"	12 7/8"	6.66	6.38	9273XY	3.33	3738	.37
3158	C	200	5/16"	13 5/16"	6.83	6.53	9275	3.19	3758	.85
3178	C	300	7/16"	14 3/4"	9.00	8.61	9277	4.32	3778	1.61
3198	C	550	1 1/8"	15"	11.66	11.16	9279	5.68	3798	2.75
Element-in-Tip Irons										
3438*	D	100	3/8"	13 1/4"	$7.33	$7.02	9473	$3.33		
3438EP†	D	100	3/8"	13 1/4"	7.99	7.66	9473EP	3.99		

*Has iron-plated tip.
†Has eternalloy plated tip.

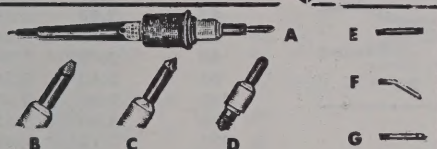


Model No. 475

TEMPERATURE REGULATING STAND No. 475

A thermostatically controlled stand for regulating soldering iron temperature while at rest. May be set for any desired heat from very low to full working temperature. For use with irons from 80 to 660 watts input. May be used on all AC Voltages up to 240 volts. Draws 660 watts maximum. Size: 6½" L. x 5⅝" W. x 3⅜" H.

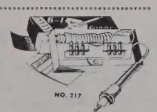
Model No. 475.....Net Each $4.41



UNGAR
Pencil Soldering Irons With Interchangeable Tips

Balanced molded plastic handle, extra long brass shell. U.L. approved. Operates on 115V A.C. or D.C. 7" Long. positive contact, form-fit cork grip, ceramic insulation

Cat. No.	Fig.	Description	Net Ea.	Net Ea. Per 10 Lot
776	A	Handle & Cord Set	$ .90	$ .73
536	C	23½ Watt 700° Pyramid Tip	.86	.71
539	B	23½ Watt 700° Chisel Tip	.86	.71
1236	C	37½ Watt 800° Pyramid Tip	1.06	.86
1239	B	37½ Watt 800° Chisel Tip	1.06	.86
4033	B	47½ Watt 900° Chisel Tip	2.40	1.95
4036	C	47½ Watt 1000° Pyramid Tip	2.40	1.95
4039	B	47½ Watt 1000° Chisel Tip	2.40	1.95
Threaded Units for Use With "Triplets" Listed Below				
535	D	23½" Watt 650°	.86	.71
1235	D	37½ Watt 750°	1.06	.86
4035	D	47½ Watt 850°	2.40	1.95
Elkalloy "Tiplets"				
331	E	Pencil	.12	.10
332	F	Offset	.12	.10
333	G	Chisel	.12	.10



UNGAR Electric Pencil and Soldering Kit Model 217

Consists of No. 776 handle and cord set, threaded heating unit, 2 copper tips for soldering and 3 brass tips and 1 alloy tip for burning or embossing wood, plastic, leather, etc. Operates on 115V A.C. or D.C. U.L. Approved.

Model 217 Complete—Net Each $2.29

KESTER 5-CORE SOLDER

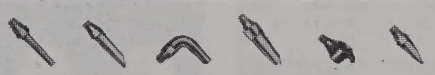
Tin/Lead Content	Gauge	Net Per Pound	Net Per Lb. 5-Lb. Spools
40/60	3/32"	$1.07	$1.03
	1/16"	1.10	1.06
50/50	3/32"	1.24	1.20
	1/16"	1.27	1.23
60/40	3/32"	1.39	1.35
	1/16"	1.42	1.38

KWIKHEAT Soldering Irons
Thermostatically Controlled

Forged Tellurium copper aloly heater element. Air-cooled, comfortable grip plastic handle. Will accommodate 8 different type tips. Ideal for production work. Widely used in telephone installation, switchboard work, garage and radio repair work. Built-in thermostat. AC operation only. Complete with 6-ft. cord and plug. 13" long. Weighs only 14 oz.

Cat. No. 300 — 225 watt with No. 1 tip.
Net Each $9.18
Lots of 3 or more Net Each $8.15

Cat. No. 1328 — Element for No. 300 iron.
Net Each $6.45
Lots of 3 or more Net Each $5.73



KWIKHEAT Interchangeable Tips

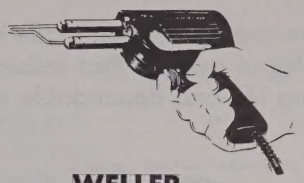
Cat. No.	Fig.	Description
#0	A	¼" at end for light soldering
#1	B	⅜" at end for medium soldering
#3	C	90° bend ⅜" at end for hard to reach work
#4	D	½" at end for medium to heavy soldering
#5	E	Small melting and tinning pot holds 102 solder
#9	F	7/16" at end for use when continuous

Any Type Tip — Net Ea. $1.13
Lots of 3 or more — Net Ea. $1.00

ORYX
Miniature Soldering Iron

The smallest precision soldering instrument, for use with all miniature equipment. Only 6" long. No fatigue; as light and easy to use as a pencil. Both models operate on 6 Volt and consume 6 watts.

Cat. No.	Bit Dia.	
6	1/16"	Net Ea. $4.95
6A	3/32"	Net Ea. (Lots of 3) 4.45



WELLER
Instant-Heat Soldering Guns

Just squeeze the trigger and in five seconds you're ready for soldering. Pre-focused dual spotlites and long reach make it easy to work in otherwise inaccessible areas. All models for 110V.—60 Cycle A.C. use.

Professional Models

Cat. No.	Watts	Net Ea.	3 or More Assorted Net Ea.	12 or More Assorted Net Ea.
S400—Single Heat	135	$8.95	$8.05	$7.61
S300—Single Heat	250	9.95	8.95	8.46
D440—Dual Heat	100/150	10.95	9.85	9.31
D550—Dual Heat	200/275	11.95	10.75	10.16

Junior Model

8100K—Single Heat	100	5.95	5.30	5.00

Weller Tips

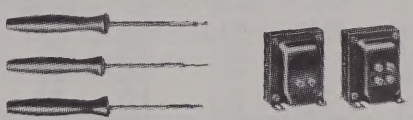
(Figure in parenthesis after type denotes quantity in package.)

Cat. No.	Use With Irons	Point Type	Net Per Pkge.	25 to 99 Pkges. Net Per Pkge.	100 Lot Net Per Pkge.
7300(2)	B, S107, D207	Chisel	.25	.23	.21
7135(2)	S400, D440, 8100	Chisel	.25	.23	.21
7250(2)	S500, D550	Chisel	.35	.32	.30
6110(1)	S400, D440, B100	Cutting	.35	.32	.30
6120(1)	S400, D440, 8100	Smoothing	.35	.32	.30
6130(1)	S500, D550	Cutting	.35	.32	.30
6140(1)	S500, D550	Smoothing	.35	.32	.30

WELLER Gun Replacement Parts

Cat. No.	Description
7325	Tip nut (Models WG100, WD135, S400, D440, Net Each $.15
7417	Tip nut (Models DS200, WD250, 8250A, S500 D550) Net Each $.15
7323	Switch (all single heat models) Net Each $1.25
7324	Switch (all dual heat models) Net Each $1.40

Transformers and housings available for all models.



GENERAL ELECTRIC
6-Volt Industrial Soldering Irons

Equipped with long-life calrod heaters and ironclad tips.

Cat. No.	Type	Net Ea.
6A210	25-watt ¼" tip	$6.90
6A212	25-watt ⅛" tip	6.90
6A214	25-watt 3/16" tip	6.90
6A211	¼" tip	3.60
6A215	⅛" tip	3.60
6A362	Single heat transformer	5.30
6A364	Four-heat transformer	7.90

ERSIN MULTICORE SOLDER

Tin/Lead Content	Gauge		Net Per Pound	Net Per Lb. 7-Lb. Spool
40/60	16	.064"	$1.28	$1.24
40/60	18	.048"	1.32	1.28
45/55	16	.064"	1.38	1.34
45/55	18	.048"	1.42	1.38
50/50	16	.064"	1.45	1.41
50/50	18	.048"	1.49	1.45
60/40	16	.064"	1.62	1.58
60/40	18	048"	1.66	1.62

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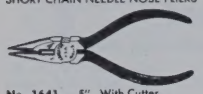
Sun Radio & ELECTRONICS CO. INC.

KRAEUTER TOOLS

Fine tools, precision-made and backed by long experience. The name is your guarantee of quality. Rust resistant blue temper handles and polished heads on all types. Long life and dependable service under the most severe use.

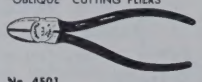
KRAEUTER INDUSTRIAL LINE

SHORT CHAIN NEEDLE NOSE PLIERS



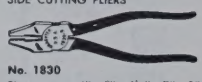
No. 1641 — 5" With Cutter
No. 1643 — 5" No Cutter

DIAGONAL "OBLIQUE" CUTTING PLIERS



No. 4501
Size 4½" 5" 6"

ELECTRICIANS' SIDE CUTTING PLIERS

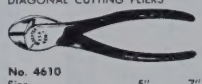


No. 1830
Size 4" 5" 6½" 7" 8"

COMBINATION PATTERN SNIPS

No. 13 — 7" Cut 1⅛"

HEAVY DUTY DIAGONAL CUTTING PLIERS

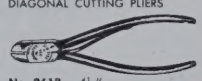


No. 4610
Size 5" 7"

LONG CHAIN NEEDLE NOSE PLIERS

No. 1661 — 6" With Cutter
No. 1671 — 6" No Cutter

WIRE STRIPPING DIAGONAL CUTTING PLIERS

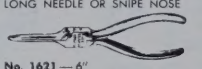


No. 2612 — 6½"

LONG CHAIN NOSE-CUTTING PLIERS

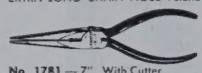
No. 1663 — 6" With Cutter

LONG NEEDLE OR SNIPE NOSE



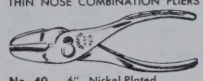
No. 1621 — 6"

EXTRA LONG CHAIN NOSE PLIERS



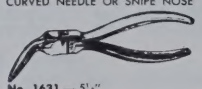
No. 1781 — 7" With Cutter
No. 1771 — 7" No Cutter

THIN NOSE COMBINATION PLIERS



No. 40 — 6" Nickel Plated

CURVED NEEDLE OR SNIPE NOSE



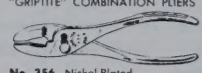
No. 1631 — 5½"

KRAEUTER
INDUSTRIAL LINE
BLUE TEMPER HANDLES
POLISHED HEADS

TONGUE-N-GROOVE JOINT PLIERS

No. 710 — 10" Polished

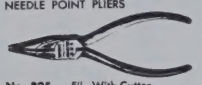
"GRIPTITE" COMBINATION PLIERS



No. 356 Nickel Plated
Size 5½" 6" 8" 10"

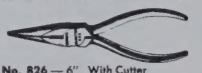
KRAEUTER PROFESSIONAL LINE

MEDIUM NOSE NEEDLE POINT PLIERS



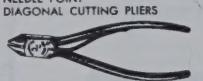
No. 825 — 5" With Cutter
No. 835 — 5" No Cutter

LONG NOSE NEEDLE POINT PLIERS



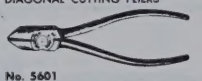
No. 826 — 6" With Cutter
No. 836 — 6" No Cutter

NEEDLE POINT DIAGONAL CUTTING PLIERS



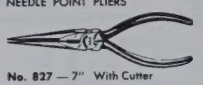
No. 5612 — 6½" Full Polished

NEEDLE POINT DIAGONAL CUTTING PLIERS



No. 5601
Size 4½" 5" 6"

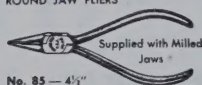
EXTRA LONG NOSE NEEDLE POINT PLIERS



No. 827 — 7" With Cutter
No. 837 — 7" No Cutter

KRAEUTER PRECISION LINE

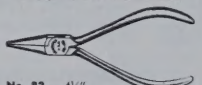
PRECISION ROUND NOSE ROUND JAW PLIERS



Supplied with Milled Jaws When Specified

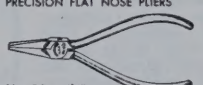
No. 85 — 4½"
No. 83-84-85

PRECISION CHAIN NOSE PLIERS



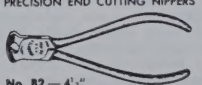
No. 83 — 4½"

PRECISION FLAT NOSE PLIERS



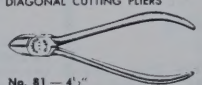
No. 84 — 4½"

PRECISION END CUTTING NIPPERS



No. 82 — 4½"

PRECISION DIAGONAL CUTTING PLIERS



No. 81 — 4½"

Tool No.	Net Ea.	6 per pkg. Net Ea.
13	$2.39	$2.25
40	1.33	1.24
356-5-½"	1.56	1.46
356-6	1.76	1.65
356-8	2.20	2.06
356-10	2.64	2.48
710	2.29	2.14
1621	2.12	1.99
1631	2.40	2.25
1641	1.76	1.95
1643	1.85	1.73
1661	2.40	2.25
1663	2.49	2.33
1671	1.88	1.76
1771	2.08	1.95
1781	2.72	2.55
1830-4	1.88	1.76
1830-5	2.00	1.88
1830-6	2.20	2.06
1830-7	2.40	2.25
1830-8	2.72	2.55
2612	2.72	2.55
4501-4	1.88	1.76
4501-5	2.12	1.99
4501-6	2.40	2.25
4610-8	2.08	1.95
4610-7	2.40	2.25
81	2.40	2.25
82	2.88	2.70
83	2.32	2.18
84	2.40	2.25
85	2.40	2.25
825	2.60	2.44
826	2.80	2.63
827	3.12	2.93
835	2.20	2.06
836	2.40	2.25
837	2.72	2.55
5601-4-½	2.40	2.25
5601-5	2.56	2.40
5601-6	2.88	2.70
5612	3.20	3.00

GREENLEE
Radio Chassis Punches

Cuts clean accurate holes in sheet metal, bakelite or hard rubber for sockets, switches, controls and other equipment. Operates simply with an ordinary wrench for drive power. Smooth perfect holes with no reaming or filing.

Fig. A. Cat No. 730 Round Radio Chassis Punches & Parts

Hole Size	Comp. Punch Net Ea.	Punch Only Cat. No.	Net Ea.	Die Only Cat. No.	Net Ea.	Drive Screw Cat. No.	Net Ea.
½"	$2.16	R-1	$1.26	R-2	$ .63	R-3	$ .27
5/8"	2.16	R-5	1.26	R-6	.63	R-3	.27
11/16"	2.16	R-5	1.26	R-6	.63	R-3	.27
¾"	2.16	R-7	1.26	R-8	.63	KR-3	.27
13/16"	2.16	R-7	1.26	R-8	.63	KR-3	.27
⅞"	2.16	KR-1	1.26	KR-2	.63	KR-3	.27
1"	2.34	R-11	1.35	R-12	.72	R-13	.27
1 1/16"	2.47	R-15	1.44	R-16	.77	R-13	.27
1 1/8"	2.47	R-17	1.44	R-18	.77	R-13	.27
1 5/32"	2.47	R-19	1.44	R-20	.77	R-13	.27
1 3/16"	2.47	R-21	1.44	R-22	.77	R-13	.27
1¼"	2.47	R-23	1.44	R-24	.77	R-13	.27
1⅜"	2.83	R-25	1.66	R-26	.90	R-13	.27
1½"	3.19	R-27	1.89	R-28	1.03	R-13	.27
1⅝"	3.69	R-29	2.16	R-30	1.17	KR-17	.36
1¾"	4.18	R-31	2.43	R-32	1.39	KR-17	.36
1⅞"	5.22	R-33	3.00	R-34	2.02	KR-25	.49
2"	5.62	R-35	2.88	R-36	2.25	KR-25	.49
2¼"	6.12	R-37	3.15	R-38	2.47	KR-25	.49
		R-98	1.26	R-99	.63		
		R-100	1.26	R-101	.63		

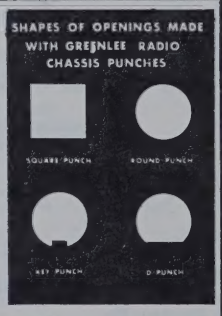


Fig. B. Cat. No. 731 Square Radio Chassis Punches & Parts

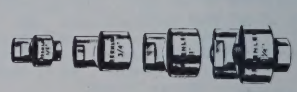
Hole Size	Comp. Punch Net Ea.	Punch Only Cat. No.	Net Ea.	Die Only Cat. No.	Ea. Net	Cat. No. Drive Screw	Ea. Net	Cat. No. Drive Nut	Ea. Net
½"	$3.33								
5/8"	$3.33	R-51	$1.44	R-52	$1.12	R-53	$ .58	R-54	$ .18
¾"	3.87	R-55	1.66	R-56	1.35	R-57	.67	R-54	.18
1"	4.50	R-59	1.80	R-60	1.53	R-61	.99	R-54	.18
		R-104	1.44	R-105	1.12	R-106	.58	R-107	.18

Fig. C. Cat. No. 732 Radio Chassis "Key" Punch & Parts

Hole Size	Comp. Punch Net Ea.	Punch Only Cat. No.	Net Ea.	Die Only Cat. No.	Net Ea.	Drive Screw Cat. No.	Net Ea.	Drive Nut Cat. No.	Net Ea.
15/16"	$3.73	R-71	$1.53	R-72	$ .99	R-73	$1.03	R-54	$ .18
1 17/64"	4.00	R-75	1.57	R-76	1.12	R-77	1.12	R-54	.18
1 17/64"	4.27	R-79	1.71	R-80	1.17	R-81	1.21	R-54	.18
1 21/64"	4.50	R-83	1.80	R-84	1.26	R-85	1.26	R-54	.18

Fig. D. Cat. No. 733 Radio Chassis "D" Punch & Parts

Hole Size	Comp. Punch Net Ea.	Punch Only Cat. No.	Net Ea.	Die Only Cat. No.	Net Ea.	Drive Screw Cat. No.	Net Ea.	Drive Nut Cat. No.	Net Ea.
½"	$3.51	R-91	$1.53	R-92	$ .99	R-93	$ .76	R-94	$ .22
5/8"	3.73	R-95	1.57	R-96	1.12	R-97	.81	R-94	.22



GREENLEE Knockout Punch Sets

Cat. No. 735 Knockout Punch Set

Designed primarily for the electrical trade to permit fast, easy enlarging of knockouts and cutting of holes for conduit in metal boxes and cabinets. Also excellent for automobile work where holes are needed for heater pipes and other accessories. No. 735 Set has four punches for cutting ⅞, 1-3/12, 1-11/32, 1-11/16-inch holes for ½, ¾, 1, 1¼-inch conduit. Set is neatly packed in leather case illustrated. The ½-inch punch will cut a ⅞-inch hole for ½-inch conduit or ¾" drive screws where no standard knockout is provided when a 7/16" hole is drilled.

Cat. No. 735 Knockout Punch Set.....Net Ea. $9.90

Cat. No. 737 Knockout Punch Set

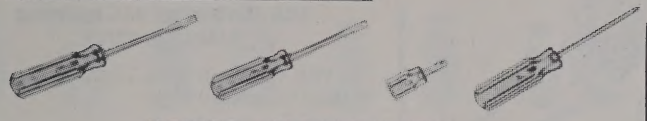
Similar to the No. 735 set, but consists of only two punches to cut holes for 1½" and 2" conduit. Packed in leather case.

Cat. No. 737 Knockout Punch Set.....Net Ea. $9.90

Cat. No. 740 Knockout Cutter

Companion tool to GREENLEE Knockout Punches. Enlarges knockouts to take 1½, 2, 2½, and 3-inch conduit. Operation is easy, simply turn drive nut with a wrench. Cutting is done by the drive action of two wheel cutters. Special discs can be furnished for cutting odd sizes of holes from 1-15/16 to 3½-inch diameter. Packed in leather case.

Cat. No. 740 Knockout Cutter.....Net Ea. $14.85



XCELITE SCREWDRIVERS

Amber plastic handle—Shockproof—Breakproof

All blades made of SAE 6150 chrome vanadium electric furnace steel.

Round Bladed Types

Blade Length	Overall Length	Cat. No. 1/8" Dia. Blade	Net Ea.	Cat. No. 5/32" Dia. Blade	Net Ea.	Cat. No. 3/16" Dia. Blade	Net Ea.	Cat. No. 1/4" Dia. Blade	Net Ea.	Cat. No. 5/16" Dia. Blade	Net Ea.
2"	2½"	R182	.30								
2"	6"							R142	.57		
3"	5½"			R5323	.39						
3"	6⅝"					R3163	.45				
4"	6½"	R184	.33	R5324	.39						
4"	7⅝"					R3164	.48				
4"	8"							R144	.60	R5164	.75
5"	7½"			R5325	.39						
6"	8½"	R186	.36								
6"	9⅝"					R3166	.57				
6"	10"							R146	.63	R5166	.87
8"	10½"	R188	.42	R5328	.48						
8"	11⅝"					R3168	.60				
8"	12"							R148	69	R5168	.87
10"	12½"	R1810	.48								
10"	13⅝"					R31610	.69				
10"	14"							R1410	.75		

Square Bladed Types

Blade Length	Overall Length	Cat. No. 1/8" Blade	Net Ea.	Cat. No. 3/16" Blade	Net Ea.	Cat. No. 1/4" Blade	Net Ea.	Cat. No. 5/16" Blade	Net Ea.	Cat. No 3/8" Blade	Net Ea.	Cat. No. 7/16" Blade	Net Ea.
2"	6"					S142	.66	S5162	.69				
3"	5½"	S183	.36										
3"	6⅝"			S3163	.54								
4"	6½"	S184	.36										
4"	7⅝"			S3164	.57								
4"	8"					S144	.69	S5164	.81				
5"	7½"	S185	.36										
6"	9⅝"			S3166	.66								
6"	10"					S146	.72	S5166	.87				
6"	11⅞"											S7166	$1.35
8"	11⅝"			S3168	.72								
8"	12"					S148	.81	S5168	.93				
8"	12½"									S388	$1.14		
10"	13⅝"			S31610	.78								
10"	14¼"							S51610	1.02				
12"	16¼"							S51612	1.11				
12"	17⅞"									S3812	1.65	S71612	1.65
18"	23⅞"									S3818	1.80	S71618	1.80
24"	28"					S1424							

Square Bladed Stubby Types

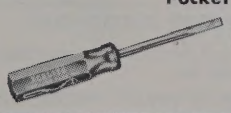
Blade Length	Overall Length			Cat. No.	Net Ea.						
1¼"	2¾"			S3161	$ .39						
1¼"	3¼"					S141	.45	S5161	$ .45		

Phillips Types

Types shown with asterisk (*) are stubbies.

Blade Length	Overall Length	Cat. No. 3/16" Dia. No. 1 Blade	Net Ea.	Cat. No. 1/4" Dia. No. 2 Blade	Net Ea.	Cat. No. 5/16" Dia. No. 3 Blade	Net Ea.	Cat. No. 3/8" Dia. No. 4 Blade	Net Ea.
1 5/16"	2¾"			*SX102	$ .66				
1 1/16"	3¼"	*SX101	$ .60						
3"	6⅝"	X101	.63						
4"	8"			X102	.81				
6"	9⅝"	X108	.69						
6"	10"					X103	$1.08		
8"	12"							X104	$1.35
10"	13⅝"	X1010	.96						
10"	14"			X1020	1.08				

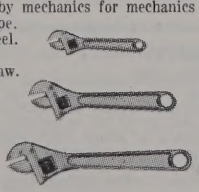
Pocket Style Screw Drivers With Clip



Blade Length	Overall Length	Cat. No. 3/32" Blade	Cat. No. 1/8" Blade	Net Ea.
2"	4"	R3322	R181	$. 18
3"	5"	R3323	R183	.24
4"	6"	R3324	R184½	.24

XCELITE ADJUSTABLE WRENCHES

The XceLite thin pattern full Alloy Steel Wrench was designed by mechanics for mechanics to get at places inaccessible with an ordinary wrench of this type.
STRONGER because they are drop forged from Chrome Alloy Steel.
THINNER to get at hard-to-reach places.
Better gripping because of the wide bearing surface of movable jaw.
Easy turning Knurl makes adjustment easy. Chrome plated.
Made in three popular sizes.



Cat. No.	Length	Net Ea.
No. 44	4 in.	$1.61
No. 46	6 in.	1.61
No. 48	8 in.	1.88

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

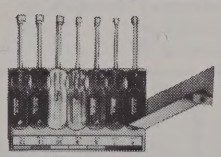
XCELITE NUT DRIVERS

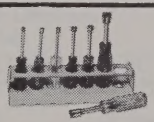
Shockproof and Breakproof With Color Coded Handles

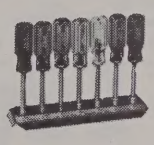
Color coded handles enable quick selection of proper size tool. Precision formed sockets. Shafts highly polished.

Fig. A.—Regular type. All 6" long overall, except Nos. 14 and 16, which are 7½" long.
Fig B.—Extra long type all 19" long overall, except Nos. A14 and A16, which are 10¾" long.
Fig. C.—Hollow shaft type, all 6⅞" long.
Fig. D.—Stubby type, all 3¼" long.

For Nut Size	Handle Color	Regular Cat. No.	Net Ea.	Extra Long Cat. No.	Net Ea.	Hollow Shaft Cat. No.	Net Ea.	Stubby Cat. No.	Net Ea.
3/16"	Black	6	$ .54	A 6	$ .69.				
7/32"	Brown	7	.54	A 7	.69				
1/4"	Red	8	.54	A 8	.69	HS 8	$ .75	S 8	$ .48
9/32"*	Orange	9	.54	A 9	.69				
5/16"	Amber	10	.54	A10	.69	HS10	.75	S10	.48
11/32"	Green	11	.54	A11	.69	HS11	.75		
3/8"	Blue	12	.54	A12	.69	HS12	.75	S12	.48
7/16"	Brown	14	.75	A14	.90	HS14	.84		
1/2"	Red	16	.75	A16	.90	HS16	.87		
9/16"	Orange					HS18	.90		
5/8"	Amber					HS20	1.05		







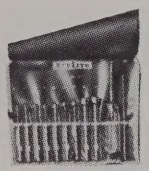
XCELITE NUT DRIVER SETS

With color coded nut drivers as described above.

Cat. No.	Mounting	Nut Driver Assortment	Net Ea.
17	Bench stand	6, 7, 8, 9, 10, 11 an.. 12	$4.32
17C	Bench stand	As above with chrome plated blades	4.86
127	Lockable wall rack	6, 7, 8, 9, 10, 11 and 12	4.71
127C	Lockable wall rack	As above with chrome plated blades	5.25
137	Bench stand	6, 8, 10, 11, 12, HS16 and HS18	5.37
137C	Bench stand	As above with chrome plated blades	5.97

XCELITE

No. 99 PR MULTI-PURPOSE NUT AND SCREW DRIVER SET



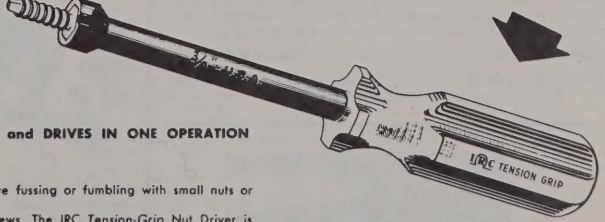
The original detachable blade servicemen's set. The nut driver and screw driver blades are bright chrome-plated. All in a durable red plastic kit that rolls up to a convenient pocket size.

Set contains: 3/16", 7/32", ¼", 3/32", 5/16;, 11/32", ⅜", 7/16" and ½" nut drivers; 3/16" and 9/32" slotted reversible screw driver blade; and No. 1 and No. 2 reversible Phillips blade.

No. 99PR—Complete with handle. **Net Ea. $7.17**

Reamer for above set. Reams from ⅛" to 5/16" in sheet steel, wood or plastic. **Net Ea. $ .99**

IRC Nut Holding TENSION-GRIP NUT DRIVERS

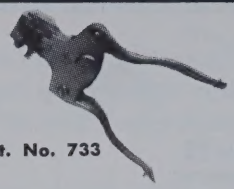


HOLDS and DRIVES IN ONE OPERATION

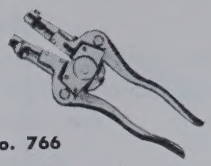
No more fussing or fumbling with small nuts or hex screws. The IRC *Tension-Grip* Nut Driver is ideal for close work in television or radio servicing. The *Tension-Grip* nut holding device is a tempered steel band that grips the nut or hexagon head screw as it enters the socket; it will not drop it! The *Tension-Grip* has a spring action and is non-magnetic; handles brass and stainless steel nuts as well as all regular types. Nut Driver shaft is drilled to a depth of 1¼", and securely set in a shock-proof plastic handle.

HOLDS NUT or HEX SCREW AUTOMATICALLY . . . WILL NOT DROP!

Cat. Number	Size in inches	Net each
61	1/4	$ .85
62	5/16	.85
63	11/32	.85
64	3/8	.90
65	7/16	1.05
66	1/2	1.05


Cat. No. 733

Cat. No. 744


Cat. No. 766

G-C SPEEDEX WIRE STRIPPERS

Fast-operating, precision-made tools for the easy stripping of insulation from all types of wire from sizes No. 8 to No. 30. Hardened steel precision-ground cutting blades are interchangeable and can be purchased separately.

Cat. No. 733 — Standard Model

Cat. No. 744 — Stay-Open Automatic Model for stripping fine stranded and solid wires; automatically holds jaws open until wire is removed, preventing crush or bending.

Cat. No. 766 — Heavy-duty Speed-O-Matic production line version of the No. 744 series.

Wire Size	Standard Cat. No.	Net Ea.	Automatic Cat. No.	Net Ea.	Speed-O-Matic Cat.	Net Ea.	*Replacement Blade Cat. No.	Net Ea.
12 to 20	733	$3.87	744	$4.85	766	$4.85	3W	$ .97
24 to 30	733A	3.87	744A	4.85	766A	4.85	3WA	.97
10 to 18	733B	3.87	744B	4.85	766B	4.85	3WB	.97
8 to 10	733C	3.87	744C	4.85	766C	4.85	3WC	.97
16, 18, 20, 22	733D	3.87	744D	4.85	766D	4.85	3WD	.97
14, 16, 18	733E	3.87	744E	4.85	766E	4.85	3WE	.97
10, 12, 14	733F	3.87	744F	4.85	766F	4.85	3WF	.97
*18P.O.SJ	733G	3.87	744G	4.85	766G	4.85	3WG	.97
300-Ohm Line	733H	3.87	744H	4.85	766H	4.85	3WH	.97
10, 12, 14, 16, 18, 20, 22	733I	3.87	744I	4.85	766I	4.85	3WI	.97
10 to 20					766M	4.85	2WM	1.03
Straight Cutter Blades					766N	4.85	2WN	1.03

*When ordering blades for No. 766 stripper, specify 2W instead of 3W.

G-C SPEEDEX WIRE STRIPPED KITS

Complete with stripper and 7 different size blades put up in a specially designed permanent steel box for wires No. 8 to No. 30.

Cat. No.	Description	Net Each
733K	Standard Stripper Kit	$9.17
744K	Automatic Stripper Kit	10.14
766K	Speed-O-Matic Stripper Kit	10.14

MILLER

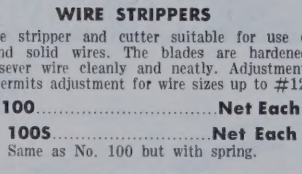
WIRE STRIPPERS

A new wire stripper and cutter suitable for use on all stranded and solid wires. The blades are hardened and ground to sever wire cleanly and neatly. Adjustment stop on handle permits adjustment for wire sizes up to #12.

Cat. No. 100.....**Net Each $.79**

Cat. No. 100S.....**Net Each $.99**

Same as No. 100 but with spring.



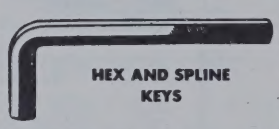
MILLER

COAXIAL CABLE STRIPPER
Model No. 400

A precision tool that cuts, strips and slits co-axial cable. Easily replaced adjustable cutting knives. Simple to operate. Leaves no nicked wires. Blades can be adjusted for various size cables.

Cat. No. 400 Cable Stripper....Net Each $38.50

H. H. SMITH



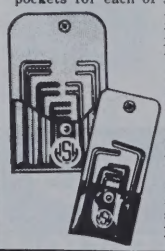
HEX AND SPLINE KEYS

Made of special alloy steel, tempered to avoid brittleness and impose maximum resistance to torsional strain. Ends ground for easy insertion.

HEX KEYS No.	Screw Size	Net Ea. Per 100	SPLINE KEYS No.	Screw Size	Net Ea. Per 100
340	No. 2	$ .07	370	No. 4	$ .07
341	No. 3, 4	.07	371	No. 5	.07
342	No. 5, 6	.07	372	No. 6	.07
343	No. 8	.07	373	No. 8	.07
344	No. 10	.08	374	No. 10	.08
345	1/4"	.08	375	1/4"	.08
346	5/16"	.08	376	5/16"	.08

HEX AND SPLINE KEY KITS

Attractive tearproof vinyl plastic kit with individual pockets for each of six keys in kit.

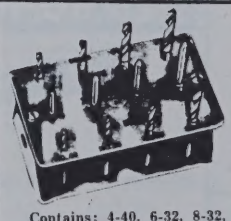


Kit of 6 hex keys for screws from No. 3 to 5/16".
No. 355 Net Ea. $0.50

Kit of 6 spline keys for screws from No. 5 to 5/16".
No. 385 Net Ea. $0.50

Combination Kit of 3 hex and 3 spline keys for No. 6-8-10 screws.
No. 390 Net Ea. $0.50

Combination Kit of 7 hex keys for screws from No. 3 to 5/16" and 4 spline keys from No. 4 to No. 10.
No. 395 Net Ea. $1.08



DRILL & TAP KIT
for • HAMS • LABORATORIES • SERVICEMEN

Specially designed for electronic bench duty, this kit contains the most popular sizes of taps and corresponding tap and body drills for precise and speedy work. Drill and tap size identifications are engraved on the steel cadmium plated drill stand, to facilitate correct replacement as needed.

Contains: 4-40, 6-32, 8-32, 10-32 Taps with eight corresponding tap and body drills.

No. 750 Kit Net Ea. $7.94

DRILL ADAPTER
CASE HARDENED STEEL

Convert your 1/4" drill chuck to drill holes up to 1/2". Steel drill adapter enables the use of drills from 1/16" to 1/2" in portable electric drill with a 1/4" chuck. Drills can be quickly inserted and tightened with two set screws provided. Set screws located at 90° angle for firm hold on drill.

No.	Description	Net Each
175	For 1/16" Drill	$ .44
176	For 3/32" Drill	.47
177	For 1/8" Drill	.50
178	For 1/2" Drill	.53
179	Kit of 4 Adapters	1.94

ICA IMPROVED ALL-PURPOSE CIRCLE CUTTER

Will Cut Holes from 1½ to 8 Inches

Cutting bar holder is 7/8" in diameter and also accommodates a centering drill or any size pilot pin. Cutting bar is 3/8" square and is arranged to hold a 5/16" high speed cutting bit.

No. 775.....**Net Ea. $3.00**

ICA UNIVERSAL MULTI-PURPOSE CUTTING TOOL

This handy tool can be used for counter-sinking, beading, drilling or cutting holes. Equipped with 5/16" drill for holes from 1/16" diameter up to 3" diameter. Can be used either in drill press or hand brace. Also acts as a boring tool when used in a lathe.

No. 780.....**Net Ea. $3.08**

ICA REPLACEMENT DRILLS AND CUTTERS

Used as replacement on ICA No. 775 and No. 780 circle cutters as well as on other make cutters.

No. 776—Replacement drill for No. 775 Circle Cutter
Net Ea. $ .50

No. 777—Replacement cutter for No. 775 Circle Cutter
Net Ea. $ .67

No. 781—Replacement drill for No. 780 Circle Cutter
Net Ea. $ .50

No. 782—Replacement cutter for No. 780 Circle Cutter
Net Ea. $ .67

ICA RIVET AND EYELET PUNCH SET

A Universal Tool that can be used for either riveting or eyeletting. Holder is made of cast iron with hexagonal sides, thus permitting the tool to be placed in a vise without slipping.

No. 785—Complete with ample assortment of eyelets and rivets.

Net Ea. $3.33

RIVET AND EYELET ASSORTMENT

Additional eyelets and rivets can be purchased separately.

No. 5265—(Asstmt. of 100)... **Net Ea. $.57**

RIVET & EYELET SETTING TOOL

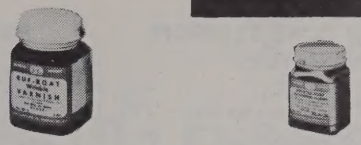
No. 786.....**Net Ea. $.64**

ICA FLEXIBLE SOCKET WRENCH

Especially designed for hard-to-reach spots. Can actually be used around corners or under obstructing objects.

No. 913— 1/4" Hex ..... **Net Ea. $ .90**

No. 914—5/16" Hex ..... **Net Ea. $ .90**



GENERAL CEMENT

Radio, TV and Electronic Chemicals

The largest, most complete and time-proven line of chemicals, coil dopes and adhesives. A type for every purpose! Most 2-oz. bottles equipped with brush for easy application. We have listed the proper type of thinner to use with chemicals that require them.
**No. 19DE-OX-ID available in 1-oz. bottles @ $.50 Net Each.*

Cat. No.	Type	2-Oz. Bottle Net Ea.	4-Oz. Bottle Net Ea.	8-Oz. Bottle Net Ea.	16-Oz. Bottle Net Ea.	1-Gallon Net Each	5-Gallons Net Each	Use with Thinner No.
16	Vinyl Plastic Cement	$.38						31
17	T.V. Line Seal	.38						
19*	DE-OX-ID	.94			$4.41			
22	Fabric Cement	.38	$.64	$.97	1.91			67
24	T.V. Tenna-Koat	.38		.73	1.03			
26	Enamel Wire Strip-X	.38			1.76			
27	Resistor Cement	.38						Distilled Water
30	Radio & Speaker Cement	.38	.64	1.12	2.15	$6.68	$29.88	28
32	Bakelite Cement	.50		1.41	2.68	17.64	70.56	67
32A	Plastic Cement	.38		1.12	2.15	9.76	42.04	28
35	Rubber to Metal Cement	.38	.70	1.12	2.15	7.06	31.76	67
36	Liquidope	.38		1.17	2.05	7.64		28
37	"Q" Dope	.38	.64	1.17	2.05	7.64		41
39	Wood Glue	.38	.64	.79	1.26			Distilled Water
40	Acrylic Cement	.38		1.12	2.15	9.70		29
43	Pli-O-Bond Cement	.38		1.12	2.15	9.70		31
45	Household Cement	.29						28
46	Label Cement	.38						29
47	Corona Dope	.70		2.29	4.41			
49	T.V. Tube Koat	.55		1.56	3.24			
50	Red-X Corona Dope	.70						
51	De-Noiz Cleaner	.94						
52	Ne-O-Prene Cement	.38		1.12	2.15			67
53	Recording Head Cleaner	.94						
56	Insulating Varnish	.38	.64	1.03	1.62	10.43		67
57	Fungus Varnish	.38		1.03	1.74	12.94		67
58	Vinylite Cement	.38		1.12				31
123	Radio Chassis Cleaner				.55	.88	3.09	
127	Contact & Crystal Cleaner	.32	.55		.64	.97		
210	Electronic Contact Cleaner	.32	.55		.73	1.17	4.41	
211	Carbon-Tet	.32	.47		.64	1.12	4.47	
212	Carbon Control Cleaner	.38						
216	T.V. Lens Cleaner	.35			.50	.82		
	THINNERS							
28	Cement Thinner	$.32	$.56	$.73	$1.05	$4.30	$18.14	
29	Lacquer Thinner	.32	.56	.73				
31	Service Solvent	.32	.56	.73	1.05	4.29	18.14	
41	"Q" Dope Thinner	.32	.56	.73		3.62		
67	Paint Thinner	.32	.56	.73	1.05	3.62	16.46	

GENERAL CEMENT

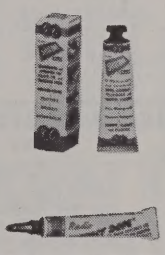
Paint Finishes

Paint finishes for amplifiers, test equipment, chassis, racks, shop equipment, machinery, radio parts, etc. **Ruf-Koat** gives a professional wrinkle job without baking. **Krystal-Koat** forms a beautiful floral pattern when dry. **Telephone Black** will produce the familiar ebony black finish of telephone devices. **Gray** is a pleasing shade excellent for panel work and parts.

Cat. No.	Type	2-Oz. Net Ea.	4-Oz. Net Ea.	8-Oz. Net Ea.	16-Oz. Net Ea.	32-Oz. Net Ea.	1-Gallon Net Ea.	5-Gallon Net Ea.	Use Thinner No.
60 Black 60 Gray or Brown	Ruf-Koat - Air Dry or Bake Ruf-Koat - Air Dry or Bake	$.38	$.64	$1.12	$1.94	$3.09	$11.76	$52.92	67
60X	(Ruf-Koat Undercoat (Pre-Coat for porous or (previously finished surfaces		.64		1.94		10.73		67
61	Krome Koat - Ready mixed Aluminum Paint	.38			1.62				67
62	Telephone Black or Gray Lacquer Enamel	.38		1.12	1.94	2.91	9.76	45.88	29
63	Krystal Koat Crystalizing Lacquer	.38	.64	1.26	2.41				29

GENERAL CEMENT

Popular Cements and Lubricants in Handy Tubes



Cat. No.	Type	2-Oz. Tube Net Ea.
34-2	Radio & Television Cement	$ .35
35-3	Rubber to Metal Cement	.38
45-3	Household & Model Cement	.29
1206	Lube-Rex Contact Cleaner	.38
1213	Contact Dope	.26
1223	Phono-Motor & Gear Lubricant	.38
*8100	Silicone Water-proofing Compound	.97

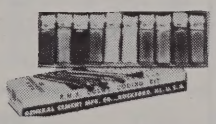
*Silicone contains only 1-oz. per tube.

GENERAL CEMENT

Silver Print

Same as used for printed circuits. A Must for printed circuit repair. Also extremely useful for experimenters, engineers, laboratories, etc. It is an air-drying pure silver compound.

Cat. No. 21-2—1-Troy Oz.....Net Each $4.68



GENERAL CEMENT

R. T. M. A. Color Coding Kit

Complete Kit of all of the standard R.T.M.A. colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Grey and White. All colors are brilliantly alive. Brushes furnished and R.T.M.A. color chart is on box. Kit is necessary for complete color coding parts. Materials are fast drying lacquer enamels.

Cat. No. 677 Color Coding Kit, Net Each $1.26

KRYLON

Enamel & Plastic Spray Coatings For Radio, TV & Electronic Use

Non-flammable, salt spray resistant, moisture, weatherproof, fungus and chemical resistant. 12 oz. cans.

Cat No.	Color	Cat No.	Color
1302	Crystal Clear	1701	Bright Gold
1401	Bright Silver	1801	Chrome Yellow
1501	Touch-Up White	1901	Regal Blue
1601	Glossy Black	1902	Baby Blue
1602	Flat Black	2001	Hunter Green
1603	Machine Grey	2101	Cherry Red
1604	Light Grey	2102	Baby Pink
		2201	Bright Copper

Net Each $1.43 **In Lots of 12, Net Each $1.30**

GENERAL CEMENT

Spray-Koat Products

A complete line of chemicals and paints in power spray cans.

Part No.	Size	Description	Net Ea.
14-6	6 oz.	G-C K-27 Print Koat Silicone Resin for Printed Circuits	$2.17
19-6	6 oz.	De-Ox-Id Silver and All Metal Contact Cleaner	2.34
47-12	12 oz.	Corona Dope for T-V High Voltage	2.17
49-12	12 oz.	G-C Tube Koat for T-V Tubes	2.17
60-12	12 oz.	Ruf-Koat Wrinkle Varnish, Black	1.83
60-13	12 oz.	Ruf-Koat Wrinkle Varnish, Gray	1.83
62-12	12 oz.	Telephone Black	1.83
62-13	12 oz.	Telephone Gray	1.83
83-12	12 oz.	Brown Hammer-Finish Spra-Koat	1.83
84-12	12 oz.	Blue Hammer-Finish Spra-Koat	1.83
85-12	12 oz.	Silver Hammer-Finish Spra-Koat	1.83
161-3	12 oz.	Mahogany Touch Up Varnish	1.83
161-5	12 oz.	Walnut Touch Up Varnish	1.83
8660	12 oz.	Aluminum Spra-Koat	1.19
8665	12 oz.	Koloid Acrylic Spray	1.19
8666	6 oz.	Spra-Kleen Contact Cleaner	.99
8754	12 oz.	Gray Enamel Spra-Koat	1.30
8755	12 oz.	Black Enamel Spra-Koat	1.30
8756	12 oz.	Brown Enamel Spra-Koat	1.30
8757	12 oz.	White Enamel Spra-Koat	1.30
8758	12 oz.	Gold Enamel Spra-Koat	1.30
8759	12 oz.	Coppertone Enamel Spra-Koat	1.30
9112	12 oz.	Wrought Iron Flat Black Spra-Koat	1.30
9113	12 oz.	Appliance White Spra-Koat	1.30
9123	12 oz.	Koloid High Voltage Alkyd	1.83

WESTLINE SPLAC

SPLAC is Westline's own water-resistant plastic spray for use wherever additional protection is wanted. SPLAC may be used on Westline Tel-A-Pipes, E-Z-Code Wire Markers, and in a multitude of other protective uses.

Net Per Can $1.59
Net Per Can (12-Lot) $1.39

SUN RADIO famous for personal, friendly service since 1922!

Sun Radio & ELECTRONICS CO. INC.

BIRNBACH CONE STANDOFF INSULATORS

No. 431 No. 431J

(Steatite)

Made of low absorption high tensile strength steatite with a smooth glaze. All heights except the No. 430 are available with a Jack or a threaded hole top. Available in a white glaze and are complete with screws, metal and cork washers.

Cat. No.	Height A	Base Dimensions B	C	Threaded Holes D	E	Mounting Hole	Net Ea.
430	5/8"	5/8"	7/16"	6-32	6-32	5/32"	$ .19
431	1"	11/16"	1/2"	8-32	8-32	3/16"	.24
431J	1"	11/16"	1/2"	8-32	No. 403 Jack	3/16"	.29
432	1 1/2"	7/8"	5/8"	10-32	10-32	7/32"	.43
432J	1 1/2"	7/8"	5/8"	10-32	No. 403 Jack	7/32"	.56
433	2 3/4"	1 1/4"	3/4"	1/4-20	1/4-20	9/32"	.82
433J	2 3/4"	1 1/4"	3/4"	1/4-20	No. 395 Jack	9/32"	1.00

BIRNBACH METAL BASE INSULATORS

No. 4176 No. 867

Designed to replace conventional porcelain insulators where base cracks when fastened down. Corrugated surface provides long leakage path. Made of high tensile strength low absorption porcelain fully glazed. Supplied with nickel-plated brass screws and nuts, cadmium plated drawn steel bases.

Cat. No.	Height A	Base Dimension B	C	Mounting Screw D	Hardware	Net Ea.
867	1 3/8"	1 7/8" x 1-5/16"	1 1/2"	2 No. 8	10-32	$ .21
867J	1 3/8"	1 7/8" x 1-5/16"	1 1/2"	2 No. 8	No. 403 Jack	.27
4176	2 3/4"	1 3/8" x	1 3/4"	1 3/8" 4 No. 10	1/4-20	.37
4176J	2 3/4"	1 3/8" x	1 3/4"	1 3/8" 4 No. 10	No. 395 Jack	.48
4451	4 1/2"	2 1/4" x	2 1/4"	1 3/4" 4 No. 10	1/4-20	.54
4451J	4 1/2"	2 1/4" x	2 1/4"	1 3/4" 4 No. 10	No. 395 Jack	.76

BIRNBACH STEATITE PILLARS

(Without Hardware)

In many constructions, these unmounted threaded steatite pillars will facilitate assembly because of the one hole mounting and parallel mounting surfaces. They are made of L5 glazed Steatite with threaded holes on both sides.

Cat. No.	Height	Diam.	Threaded Hole	Net Ea.
441	1/4"	1/4"	6-32	$ .09
441A	1/2"	1/4"	6-32	.09
442	3/8"	3/8"	6-32	.09
442A	1/2"	3/8"	6-32	.09
443	1/2"	1/2"	6-32	.09
444	3/4"	1/2"	6-32	.10
445	1"	1/2"	6-32	.10
446	1 1/2"	1/2"	6-32	.11
447	2 1/2"	1/2"	6-32	.12
448	2 1/2"	3/4"	1/4-20	.17
449	4"	3/4"	1/4-20	.19

BIRNBACH FEEDTHRU INSULATORS

478 478J

Made of highly vitrified, low absorption porcelain smoothly glazed to prevent accumulation of dust or dirt. Maximum strength is achieved by the proper proportions and flat mounting surfaces. Long insulating sleeves on the lower part of the insulator contribute much to their performance on high voltages. Brass nickel-plated hardware.

Cat. No.	Height A	Dimen. B	C	Mounting Hole	Hardware	Net Ea.
458	5/8"	11/16"	1/4"	5/16"	6-32	$ .15
478	1"	13/16"	5/16"	7/16"	10-32	.21
478J	1"	13/16"	5/16"	7/16"	No. 403 Jack	.25
4125	1 1/4"	7/8"	3/8"	7/16"	10-32	.24
4125J	1 1/4"	7/8"	3/8"	7/16"	No. 403 Jack	.27
4234	2 3/4"	2"	1"	3/4"	1/4-20	.59
4175	2 3/4"	1 1/4"	3/4"	5/8"	1/4-20	.53
4175J	2 3/4"	1 1/4"	3/4"	5/8"	No. 394 Jack	.76

BIRNBACH CORRUGATED FEEDTHRU INSULATORS

479 479J

The six new corrugated type feedthru insulators have more than twice the leakage path of the straight type because of increased surface of the corrugations and recommends itself where a straight side insulator of equal height is not satisfactory because of its shorter leakage path

Brass nickel-plated hardware and cork mounting washers supplied.

Cat. No.	Height A	Dimen. B	C	Mounting Hole	Hardware	Net Ea.
479	1 3/8"	1 1/4"	11/16"	9/16"	10-32	$ .37
479J	1 3/8"	1 1/4"	11/16"	9/16"	No. 403 Jack	.45
4276	2 3/4"	1 3/8"	1"	3/4"	1/4-20	.68
4276J	2 3/4"	1 3/8"	1"	3/4"	No. 394 Jack	.79
4452	4 1/2"	2 1/8"	1 1/2"	1"	1/4-20	1.00
4452J	4 1/2"	2 1/8"	1 1/2"	1"	No. 394 Jack	1.18

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

BIRNBACH STANDOFF INSULATORS

No. 866 No. 866J

Made of highly vitrified low absorption glazed porcelain. No washers necessary — mounting surface is ground flat; for No. 404, No. 966 it is advisable to use cork washers which are available. All brass nickel-plated hardware supplied.

Cat. No.	Height A	Base Dimension B	C	D	Mounting Holes	Hardware	Net Ea.
405	3/8"	1"	17/32"	11/16"	5/32"	6-32	$ .08
965	1"	1 1/4"	3/4"	13/16"	5/32"	8-32	.10
966	1"	1 3/8"	7/8"	1"	5/32"	8-32	.10
966J	1"	1 3/8"	7/8"	1"	5/16"	No. 403 Jack	.14
866	1 1/2"	1 3/4"	1 1/8"	1 1/4"	5/32"	10-32	.14
866J	1 1/2"	1 3/4"	1 1/8"	1 1/4"	5/16"	No. 403 Jack	.18
866SJ	1 1/2"	1 3/4"	1 1/8"	1 1/4"	5/32"	No. 395 Jack	.42
4275	2 3/4"	2 3/4"	2"	2 1/8"	1/4"	1/4-20	.36
4275J	2 3/4"	2 3/4"	2"	2 1/8"	1/4"	No. 399 Jack	.59
4450	4 1/2"	3 3/8"	2 1/2"	2 3/8"	9/32"	1/4-20	.68
4450J	4 1/2"	3 3/8"	2 1/2"	2 3/8"	9/32"	No. 399 Jack	.88

BIRNBACH HIGH VOLTAGE FEEDTHRU INSULATOR

This insulator has been designed to meet the demand for an insulator having high dielectric and mechanical strength. The extra long leakage path is made possible by the corrugations on the top insulator. The bottom sleeve taper from a base dia. of 1-3/16" where the electric stress is greatest.

Cat. No.	Height	Base Dia.	Mounting Hole	Hardware	Net Ea.
4233	1 3/8"	2"	1 1/4"	1/4-20	$ .53

BIRNBACH STEATITE PILLARS

450 450J

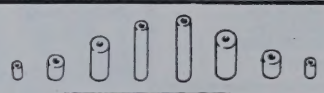
Have great tensile strength with extremely low losses at very high frequencies. Tapped on both ends; supplied with nickel plated mounting base and top hardware.

Cat. No.	Height Dimen. A	B	Base Dia. C	D	Hardware	Net Ea.
450	1"	1/2"	1 1/16"	7/8"	6-32	$ .34
450J	1"	1/2"	1 1/16"	7/8"	No. 403 Jack	.40
451	1 1/2"	1/2"	1 1/16"	7/8"	6-32	.40
451J	1 1/2"	1/2"	1 1/16"	7/8"	No. 403 Jack	.43
452	2 1/2"	1/2"	1 1/16"	7/8"	6-32	.43
452J	2 1/2"	1/2"	1 1/16"	7/8"	No. 403 Jack	.57
453	2 1/2"	3/4"	1-9/16"	1-3/16"	1/4-20	.76
453J	2 1/2"	3/4"	1-9/16"	1-3/16"	No. 395 Jack	.88
454	4"	3/4"	1-9/16"	1-3/16"	1/4-20	1.00
454J	4"	3/4"	1-9/16"	1-3/16"	No. 395 Jack	1.03

BIRNBACH "LUCITE" FEEDTHRU INSULATORS

These feedthru insulators are ideal for bringing high frequency leads thru a panel. They are made of genuine Dupont Lucite. Because of its low loss at high frequency, it is well adapted to insulated elements of high frequency circuits. The 1/2" dia. insulators have brass nickel plated 6-32 hardware and the 3/4" dia. insulators, 10-32 hardware.

Cat. No.	Height Above Panel	Insulator Dia.	Mtg. Hole	Bottom Height	Net Ea.
377	1/4"	1/2"	5/16"	1/4"	$ .27
378	1/2"	1/2"	5/16"	1/4"	.36
379	1"	1/2"	5/16"	1/4"	.39
475	1 1/2"	3/4"	7/16"	1/2"	.84
476	2"	3/4"	7/16"	1/2"	.63



CENTRALAB

Ceramic Pillar Insulators

Made of Grade L5 Steatite. Approved without limitation for Army and Navy use. Circumference glazed, tapped for screw sizes shown.

LENGTH	1/4" Diam.* #6-32 Thd.	3/8" Diam.** #6-32 Thd.	1/2" Diam.** #6-32 Thd.	3/4" Diam.** #10-32 Thd.	1" Diam.** 1/4"-20 Thd.
1/4"	X-63 $.06				
3/8"	X-64 .06	X-65 $.07			
1/2"	X-8 .07	X-48 .07	X-12 $.07		
5/8"		X-50 .07			
3/4"	X-9 .07	X-52 .07	X-13 .09	X-20 $.10	
1"	X-10 .08	X-54 .09	X-14 .10	X-21 .10	X-28 $.11
1 1/4"	X-11 .09	X-56 .10	X-15 .10	X-22 .11	X-29 .11
1 1/2"		X-58 .10	X-16 .10	X-23 .11	X-30 .12
2"		X-60 .10	X-17 .11	X-24 .11	X-31 .13
2 1/4"		X-62 .11			
2 1/2"			X-18 .11	X-25 .12	X-32 .14
3"			X-19 .12	X-26 .32	X-33 .17
4"				X-27 .15	X-34 .20
5"					X-35 .22

*5 per carton. **Cartoned singly.

NATIONAL

Ceramic Stand-Off Insulators

	Net Ea.
GS-1, 1/2" x 1 3/8"	$ .27
GS-2, 1/2" x 2 7/8"	.35
GS-3, 3/4" x 2 7/8"	.69
GS-4, 3/4" x 4 7/8"	.86
GS-4A, 3/4" x 6 7/8"	1.20

Cylindrical low-loss steatite standoff insulators with nickel plated caps and bases.

GS-10, 3/4" high **$0.11 Net Ea.**

	Net Ea.
GS-5, 1 1/4" high	$ .35
GS-6, 2" high	.48
GS-7, 3" high	.86

These cone type standoff insulators are of low loss steatite. They are moulded with a tapped hole in each end for mounting as follows:

GS-5, 8-32 tap 7/16" deep; GS-6 & GS-7, 10-24 tap 11/16" deep; GS-10, 6-32 tap 1/4" deep and GS-10S as noted above.

Net Ea.

GS-8, with terminal **$0.62**

These low-loss steatite standoff Insulators are also useful as lead-through bushings.

Net Per Pair

XS-3, (2 3/4" hole) **$4.13**

XS-4, (3 3/4" hole) **4.98**

Prices are per pair and include nickel plated spindles, lugs and hardware. These low-loss steatite bowls are ideal for lead-in purposes at high voltages.

Net Per Pair

XS-5, Without Fittings **$5.65**

These big low-loss bowls have an extremely long leakage path and a 5 1/4" flange for bolting in place. Insulation steatite. Fittings include nickel plated brass spindles, lugs, nuts and washers.

NATIONAL BUSHINGS

TPB

A threaded polystyrene bushing with removable .093 conductor moulded in, 1/4" diam., 28 thread.

$0.08 Net Ea.

	Net Per Pair
XS-7, (3/8" Hole)	$ .42
XS-8, (1 1/2" Hole)	.55
XS-1, (1" Hole)	.83
XS-2, (1 1/2" Hole)	.93

XS-9

Feed-through insulator. Hole size 13/64". Insulators are adjustable on silver-plated terminal stud for different partition thicknesses. Ceramic insulators are of high grade materials designed for high frequency equipment.

$0.35 Net Ea.

National NC

POLYSTYRENE

ROD-TUBING-SHEET

For radio and electronic applications, because of its very low loss factor at ultra high frequencies, Polystyrene is the ideal material for insulators, coil forms, shields, etc. It has excellent arc resistance, is non-tracking and has splendid insulating properties. Because its water absorption is practically zero, it has excellent dimensional stability.

POLYSTYRENE TUBING — Satin Finish

Available in 12" or 48" lengths.

Catalog Number	O.D.	I.D.	Net Price 12" lgth.	Net Price 48" lgth.
JB-201	1/4"	1/8"	$ .07	$ .28
JB-202	5/16"	3/16"	.10	.40
JB-203	3/8"	1/4"	.13	.52
JB-205	1/2"	3/8"	.18	.72
JB-206	5/8"	1/2"	.23	.92
JB-207	3/4"	5/8"	.29	1.16
JB-208	1"	7/8"	.38	1.52
JB-220	1 1/2"	1 1/4"	1.13	4.52
JB-222	2"	1 3/4"	1.50	6.00

POLYSTYRENE ROD — Transparent

Available in 12" or 48" lengths

Catalog Number	Diameter	Net Price 12" lgth.	Net Price 48" lgth.
JB-100	1/8"	$ .03	$ .12
JB-101	3/16"	.06	.24
JB-102	1/4"	.10	.40
JB-103	5/16"	.16	.64
JB-104	3/8"	.21	.84
JB-105	7/16"	.30	1.20
JB-106	1/2"	.40	1.60
JB-107	5/8"	.57	2.28
JB-108	3/4"	.80	3.20
JB-109	7/8"	1.15	4.60
JB-110	1"	1.55	6.20
JB-111	1 1/8"	2.00	8.00
JB-112	1 1/4"	2.30	9.20
JB-113	1 3/8"	3.00	12.00
JB-114	1 1/2"	3.30	13.20
JB-116	1 3/4"	4.50	18.00
JB-118	2"	5.90	23.60

POLYSTYRENE SHEET

The following sheets are all crystal clear with smooth surfaces.

Catalog Number	Thickness	Sheet Size	Net Price
19-0628	1/16"	4" x 8"	.20
19-0938	3/32"	4" x 8"	.24
19-1258	1/8"	4" x 8"	.37
19-1878	3/16"	4" x 8"	.47
19-2508	1/4"	4" x 8"	.51
JB-125	1/16"	12" x 12"	$2.50
JB-126	3/32"	12" x 12"	2.75
JB-127	1/8"	12" x 12"	3.00
JB-128	3/16"	12" x 12"	3.75
JB-129	1/4"	12" x 12"	4.60
JB-245	1/16"	12" x 24"	4.90
JB-246	3/32"	12" x 24"	5.25
JB-247	1/8"	12" x 24"	5.90
JB-248	3/16"	12" x 24"	7.25
JB-249	1/4"	12" x 24"	8.25
JB-300	1/32"	20" x 20"	7.75
JB-301	1/16"	24" x 24"	9.50
JB-302	3/32"	24" x 24"	10.25
JB-303	1/8"	24" x 24"	11.75
JB-304	3/16"	24" x 24"	14.00
JB-305	1/4"	24" x 24"	16.00
JB-306	5/16"	20" x 20"	14.50
JB-308	3/8"	20" x 20"	16.00
JB-309	3/8"	24" x 24"	23.75
JB-310	1/2"	20" x 20"	21.50
JB-311	1/2"	24" x 24"	31.88
JB-312	5/8"	20" x 20"	34.50
JB-313	3/4"	20" x 20"	41.00
JB-314	1"	20" x 20"	55.50

H. H. SMITH

BRASS SPACERS

CADMIUM PLATED

These brass bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc. Hole in bushing to accommodate a No. 6 or No. 8 screw.

For No. 6 Screw No.	Net Per 100	1/4" O.D. Length	For No. 8 Screw No.	Net Per 100
2100	$2.91	1/4"	2105	$2.91
2101	3.79	3/8"	2106	3.79
2102	4.70	1/2"	2107	4.70
2103	5.59	3/4"	2108	5.59
2104	6.47	1"	2109	6.47
		1/8" O.D.		
2110	4.70	1/4"	2115	4.70
2111	5.59	3/8"	2116	5.59
2112	6.47	1/2"	2117	6.47
2113	7.35	3/4"	2118	7.35
2114	8.23	1"	2119	8.23

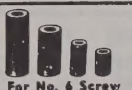
THREADED BRASS SPACERS

CADMIUM PLATED

Brass bushings 1/4" O.D. Threaded 6-32 and 8-32.

Threaded 6-32 No.	Net Per 100	Length	Threaded 8-32 No.	Net Per 100
2120	$3.53	1/4"	2125	$3.53
2121	4.41	3/8"	2126	4.41
2122	5.29	1/2"	2127	5.29
2123	6.47	3/4"	2128	6.47
2124	7.35	1"	2129	7.35

INSULATED SPACERS

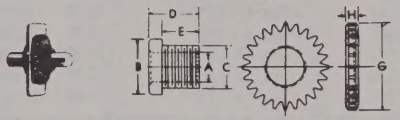


These fibre bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc.

For No. 6 Screw No.	Net Per 100	1/4" O.D. Length	For No. 8 Screw No.	Net Per 100
2130	$3.53	1/4"	2140	$3.53
2131	3.97	3/8"	2141	3.97
2132	4.12	1/2"	2142	4.12
2133	5.29	3/4"	2143	5.29
2134	6.32	1"	2144	6.32

INSULATED GROMMET BUSHINGS

Black Phenolic — Matte Finish



NO.	BUSHING A	B	C	D	COLLAR E	G	H	Net Ea.
931	1/8"	3/8"	1/4"—32	.3750"	1/4"	1/2"	1/8"	$ .15
932	3/16"	7/16"	5/16"—32	.4250"	5/16"	5/8"	1/8"	.16
933	1/4"	1/2"	3/8"—27	.4375"	5/16"	11/16"	1/8"	.17
934	5/16"	9/16"	15/32"—32	.4500"	5/16"	7/8"	1/8"	.18
935	3/8"	3/4"	5/8"—27	.4500"	5/16"	1"	1/8"	.19

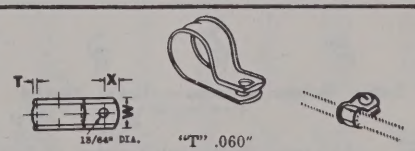
THREADED BRASS RODS

Rods ordinarily supplied in one foot lengths; if two foot length is required, please specify.

No.	Size	Net Per Foot
1400	6-32	$ .21
1401	8-32	.21
1402	10-32	.26
1403	1/4"-20	.29

BRASS AND INSULATED RODS

No.	Type	Length	Dia.	Net Ea.
1404	Brass	6"	1/4"	$ .18
1405	Brass	12"	1/4"	.35
1406	Insulated	6"	1/4"	.15
1407	Insulated	12"	1/4"	.29

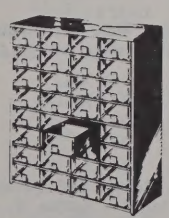


"T" .060"
"X" 7/32"
"W" 1/2"

SMITH

Plastic Cable Clips

No.	Size	D	E	Net Ea.	Net Per 100
831	1/8"	.115	.360	$ .03	$2.34
832	5/32"	.172	.423	.03	2.40
833	1/4"	.234	.457	.03	2.58
834	5/16"	.297	.498	.03	2.85
835	3/8"	.359	.529	.04	3.00
836	7/16"	.422	.560	.04	3.30
837	1/2"	.484	.592	.04	3.60



AKRO-MILS

HAZ-BIN JR. STORAGE CABINETS

The handiest cabinets ever made for storing small parts. Save time, save space and simplify stocking. Contents fully visible and dust-proof. Silver grey finished welded all-steel cabinets with spill-proof plastic drawers.

Cat. No.	No. of Drawers	No. of Compartments	Size H. x W. x D.	Net Ea.
J8	8	24	4" x12½"x6"	$4.25
J12	12	36	6⅛"x12½"x6"	5.95
J16	16	48	8⅛"x12½"x6"	5.95
J20	20	60	10⅛"x12½"x6"	7.95
J24	24	72	12⅛"x12½"x6"	9.95
J32	32	96	15¼"x12½"x6"	12.95
J48	48	144	22½"x12½"x6"	20.95
J64	64	192	15¼"x25⅛"x6"	24.95
J96	96	288	22½"x25⅛"x6"	42.95
J128	128	384	30½"x25⅛"x6"	55.95

"SCOTCH" BRAND

(Minnesota Mining & Mfg. Co.)

Scotch Brand Vinyl Plastic Black Electrical Tape. U. L. Approved

Type	Size	Net Per Roll	Net Per 12 Rolls	Net Per 48 Rolls	Net Per 144 Rolls	Net Per 576 Rolls	Net Per 1152 Rolls
22	½" x 36 yds.	$1.95	$1.76	$1.56	$1.37	$1.33	$1.27
22	¾" x 36 yds.	2.40	2.16	1.32	1.68	1.64	1.56
22	1" x 36 yds.	3.00	2.70	2.40	2.10	2.04	1.95
22	2" x 36 yds.	6.00	5.40	4.80	4.20	4.08	3.90
33	⅜" x 20"	.35	.32	.28	.25		
33	½" x 150"	.39	.35	.31	.27		
33	¾" x 20"	.55	.50	.44	.39	.38	.36
33	¾" x 66"	1.50	1.35	1.20	1.05	1.02	.98

Phillips Type Round Head Machine Screws Nickel Plated Steel

Cat. No.	Size	Box of 1,000 Net Price	Box of 144 Net Price
8511	6-32 x 1/4"	$8.26	$1.38
8512	6-32 x 1/2"	8.56	1.41
8513	6-32 x 3/4"	8.56	1.41
8514	6-32 x 1"	9.75	1.62
8515	8-32 x 5/16"	8.56	1.41
8516	8-32 x 1/2"	9.15	1.53
8517	8-32 x 3/4"	9.75	1.62
8518	8-32 x 1"	11.53	1.91

Binding Head Machine Screws Nickel Plated Steel

Cat. No.	Size	Box of 1,000 Net Price	Box of 144 Net Price
7154	5-36 x 1/4"	$ .88	$4.70
7151	6-32 x 3/16"	.61	3.67
7152	6-32 x 1/4"	.76	4.56
7153	6-32 x 3/8"	.76	4.56
7155	7-32 x 3/8"	1.03	6.17
7158	8-32 x 5/16"	.94	5.59

Wood Screws — Round Head Nickel Plated Steel

Cat. No.	Size	Box of 144 Net Price	Box of 1,000 Net Price
6114	No. 4 x 1/2"	$1.44	$8.68
6115	No. 4 x 3/4"	1.53	9.12
6116	No. 6 x 3/4"	1.59	9.57
6117	No. 6 x 1"	1.88	11.32
6118	No. 8 x 3/4"	1.85	11.02
8071	No. 8 x 1 1/4"	2.29	13.66
8073	No. 10 x 1 1/2"	3.00	8.13
8075	No. 12 x 1 1/2"	3.59	21.40
8076	No. 14 x 1 3/4"	4.65	27.78

Sheet Metal Screws Hex-Head — Slotted Self-Tapping — Nickel Plated

Cat. No.	Size	Box of 144 Net Price	Box of 1,000 Net Price
6090	No. 4 x 1/2"	$ .97	$5.88
6091	No. 6 x 1/4"	.97	5.73
6092	No. 6 x 3/4"	.97	5.88
6093	No. 6 x 1/2"	1.32	7.94
6094	No. 6 x 3/4"	1.41	8.53
8102	No. 8 x 1/4"	1.71	10.14
6095	No. 8 x 3/8"	1.23	7.35
6096	No. 8 x 1/2"	1.56	9.26
6097	No. 8 x 1"	2.00	12.05
6098	No. 10 x 3/8"	1.76	10.58
6099	No. 10 x 1/2"	1.88	11.32
6100	No. 10 x 3/4"	2.09	12.49

Cable Holder Clamps — Nickel Plated

Cat. No.	To Fit Cable	Mounting Hole	Box of 144 Net Price	Box of 1,000 Net Price
6251	1/8" to 3/16"	No. 6	$1.15	$6.91
6252	3/16" to 1/4"	No. 6	1.32	7.94
7503	1/4" to 5/16"	No. 6	1.41	8.53
6253	5/16" to 1/2"	No. 6	1.50	8.97

Fahnestock Clips — Nickel Plated

Cat. No.	Lgth.	Wdth.	Mtg. Hole	Box of 144 Net Price	Box of 1,000 Net Price
6301	1/2"	7/32"	4	$2.32	$13.95
6302	3/4"	5/16"	6	2.41	14.40
6303	1 1/16"	3/8"	8	2.79	16.75
6304	1 1/2"	5/16"	6	13.95	83.80
6306	3/4"	5/16"	6	4.56	27.33
6307	Ammeter Connection			12.29	73.80

GENERAL CEMENT
ELECTRONIC HARDWARE

Soldering Lugs

Cat. No.	Screw Size	No.	Lgth.	Box of 144 Net Price	Box of 1,000 Net Price
1021-B	No. 6	B	23/32"	1.15	6.56
7445	No. 8	B	23/32"	1.26	7.49
8473	No. 10	B	23/32"	1.41	8.53
1021-C	No. 6	C	11/16"	.97	5.73
1021-F	No. 6	F	9/16"	.97	5.73
7451	No. 8	F	9/16"	1.06	6.03
7454	No. 6	H	7/8"	1.26	7.64
7455	No. 8	H	7/8"	1.32	7.94
7456	No. 10	H	7/8"	1.35	8.08
7458	No. 4	K	13/16"	1.53	9.11
7460	No. 8	K	13/16"	1.53	9.11
7461	No. 10	K	13/16"	1.73	10.45
7462	No. 6	L	5/8"	1.53	9.11
7463	No. 8	L	5/8"	1.73	10.45
7441	No. 6	M	11/16"	1.23	7.35
7442	No. 8	M	11/16"	1.26	7.50

Tinnerman Speed Nuts

Cat. No.	Size	Box of 144 Net Price	Box of 1,000 Net Price
6051	No. 4	$ .94	$5.00
6052	No. 6	.82	5.00
6053	No. 8	.82	5.00

Solid Brass Nickel Plated Acorn Nuts

6031	6-32	$3.18	$19.10
6032	8-32	3.18	19.10
6033	10-32	3.38	20.49

Knurled Thumb Nuts Nickel Plated Brass

6655	6-32	$2.00	$12.05
6656	8-32	2.20	13.23
6657	10-32	5.35	32.05

Nickel Plated Wing Nuts

6658	6-32	$3.38	$20.28
6659	8-32	3.38	20.28
6660	10-32	3.67	20.05

Angles and Brackets

Cat. No.	A.	B.	C.	Hole Size	Box of 144 Net Price	Box of 1,000 Net Price
6261	1/4"	3/16"	3/32"	6	$1.64	$9.85
6261	3/8"	1/4"	3/32"	6	1.32	7.94
6263	1/2"	7/16"	3/8"	6	1.71	10.30

Ornamental Head Screws Steel — Statuary Bronze Plated

Cat. No.	Size	Box of 1,000 Net Price	Box of 144 Net Price
1097	6-32 x 3/4"	$ .88	$5.29
1098	6-32 x 1"	1.00	6.03
1099	8-32 x 1 1/4"	1.53	9.12

Brass Eyelets

Cat. No.	Shank Dia.	Lgth. Under Head	Head Dia.	Box of 144 Net Price	Box of 1,000 Net Price
7251	.087	1/8"	.145	$ .45	$12.65
7252	.087	5/32"	.145	.48	2.79
7253	.087	7/32"	.145	.53	3.09
7254	.087	11/32"	.180	.68	4.12
7257	.123	5/32"	.197	.53	3.23
7259	.123	7/32"	.195	.59	3.53
7260	.123	1/4"	.195	.65	3.82
7261	.123	9/32"	.195	.71	4.26
7264	.125	3/16"	.289	1.46	8.82
7265	.127	15/32"	.222	1.32	7.94
7269	.182	3/16"	.315	.45	7.94

Snap Button Hole Plugs — Nickel Plated

Cat. No.	For Hole Dia.	Box of 144 Net Price	Box of 1,000 Net Price
1711-A	1/4"	$3.18	$19.10
1711-B	5/16"	3.18	19.10
1711	3/8"	3.18	19.10
1712	1/2"	3.67	21.99
1713	5/8"	4.41	26.46
1714	3/4"	5.38	22.54
1714-A	7/8"	7.11	42.63
1715-A	1"	7.11	42.63
1715-B	1 1/8"	7.11	42.63
1715	1 1/4"	9.32	55.86

Lock Washers — Cadmium Plated Internal Lock Washers

Cat. No.	Size	O.D.	Box of 144 Net Price	Box of 1,000 Net Price
7322	No. 2		$ .85	$5.14
7323	No. 3		.82	4.85
7324	No. 4		.50	2.94
7326	No. 6	9/32"	.50	2.94
7328	No. 8	21/64"	.56	3.38
7330	No. 10	3/8"	.59	3.59
7332	No. 1/4"	5/16"	.76	4.56
7333	No. 5/16"	13/32"	.97	5.88
7334	No. 3/8"	11/16"	1.53	9.11
7335	No. 3/8"	11/16"	1.32	7.94
7338	No. 13/32"	13/32"	1.71	10.24

External Lock Washers — Cadmium Plated

7354	No. 4		$ .59	$3.53
7356	No. 6		.59	3.53
7358	No. 8		.59	3.53
7360	No. 10		.62	3.67
7361	No. 1/4"	1/2"	.79	4.70
7363	No. 3/8"	11/16"	.79	4.70

Radio Knob Set Screws Slotted — Headless — Hardened Steel

Cat. No.	Size	Box of 144 Net Price	Box of 1,000 Net Price
6071	6-32 x 1/8"	$1.71	$10.14
6072	6-32 x 3/16"	1.85	11.02
6073	6-32 x 1/4"	1.85	11.17
6074	8-32 x 1/8"	2.20	13.22
6075	8-32 x 3/16"	1.62	9.70
6076	8-32 x 1/4"	1.65	9.85
6077	8-32 x 1/2"	1.85	11.02
6078	10-32 x 3/16"	1.88	11.32
6079	10-32 x 1/4"	1.91	11.47

Allen Hex Set Screws Steel Hardened — Headless

7191	4-36 x 1/8"	$8.17	$49.09
7196	6-32 x 1/8"	8.17	49.09
7197	6-32 x 3/16"	8.17	49.09
7201	8-32 x 1/8"	8.17	49.09
7202	8-32 x 3/16"	8.17	49.09

Bristo Set Screws Hardened Steel — Spline Type — Headless

7182	6-32 x 3/16"	$7.35	$44.10
7186	8-32 x 1/8"	7.35	44.10
7187	8-32 x 3/16"	7.35	44.10

GENERAL CEMENT ELECTRONIC HARDWARE

Round Head Machine Screws — Nickel Plated Steel

Cat. No.	Size	Box of 144 Net Price	Box of 1,000 Net Price
7130	2-56 x 1/4"	$ .56	$3.32
7131	2-56 x 1/2"	.56	3.38
7132	2-56 x 3/4"	.68	3.97
7124	3-48 x 3/4"	.71	4.12
6005	4-36 x 1/4"	.59	3.35
7138	4-36 x 3/8"	.59	3.53
6006	4-36 x 1/2"	.62	3.65
6007	4-36 x 3/4"	.71	4.21
6005-A	4-40 x 1/4"	.59	3.35
6005-B	4-40 x 1/2"	.62	3.67
6005-C	4-40 x 3/4"	.73	4.41
6008	6-32 x 1/4"	.62	3.67
6009	6-32 x 1/2"	.71	4.26
6010	6-32 x 3/4"	.97	5.00
6011	6-32 x 1"	.94	5.58
7141	6-32 x 1 1/4"	1.18	7.06
6013	8-32 x 1/4"	.79	4.70
6014	8-32 x 3/8"	.85	5.15
6015	8-32 x 1/2"	.91	5.47
6016	8-32 x 3/4"	1.06	6.32
6017	8-32 x 1"	1.21	7.19
7142	8-32 x 1 1/4"	1.53	9.11
6020	10-32 x 1/2"	1.06	6.38
6021	10-32 x 3/4"	1.27	7.55
6022	10-32 x 1"	1.44	8.52
7143	10-32 x 1 1/2"	1.91	11.46
7144	1/4-20 x 1/2"	1.82	10.88
8061	1/4-20 x 3/4"	2.20	13.23
8062	1/4-20 x 1"	2.53	15.14
7145	1/4-20 x 1 1/4"	3.03	18.07
8521	1/4-20 x 1 3/4"	3.47	20.58
7146	1/4-20 x 2 1/2"	4.67	28.07

Round Head Machine Screws Brass — Not Plated

Cat. No.	Size	Box of 144 Net Price	Box of 1,000 Net Price
8501	6-32 x 1/4"	1.18	7.06
8502	6-32 x 1/2"	1.36	8.08
8503	6-32 x 3/4"	1.70	10.14
8504	6-32 x 1"	2.21	13.23
8505	8-32 x 1/4"	1.56	9.41
8506	8-32 x 1/2"	2.18	13.08
8507	8-32 x 3/4"	2.49	14.99
8508	8-32 x 1"	2.79	16.76

Oval Head Rack Screws Nickel Plated Steel

Cat. No.	Size	Box of 144 Net Price	Box of 1,000 Net Price
6540	6-32 x 1/2"	.85	5.14
6541	6-32 x 3/4"	.88	5.29
6542	8-32 x 3/4"	1.06	6.32
6543	10-32 x 3/4"	1.24	7.35

Cup Finishing Washers

6161	Cup Washers, No. 6	$.45	$2.65
6162	Cup Washers, No. 8	.50	2.94
6163	Cup Washers, No. 10	.53	3.23

Cotter Pin Steel — Cadmium Plated

Cat. No.	Dia.	Lgth. Under Eye	Box of 144 Net Price	Box of 1,000 Net Price
7301	1/16"	1/2"	$.39	$2.35
7303	1/16"	1"	.39	2.35
7304	1/16"	1 1/4"	.42	2.50
7305	3/32"	1/2"	.53	3.23

Rubber Feet — Screw Type

Cat. No.	O.D.	High	Box of 144 Net Price	Box of 1,000 Net Price
1075-B	3/8"	3/16"	$1.12	$6.76
1075-C	1/2"	1/4"	1.71	10.30
1075-F	5/8"	5/16"	2.50	15.00

Hexagon Nuts — Nickel Plated Steel

Cat. No.	Thread	Size Width	Thickness	Box of 144 Net Price	Box of 1,000 Net Price
7225	2-56	3/16"	1/16"	$ .88	$5.29
7226	3-48	3/16"	1/16"	.85	5.14
6041	4-36	1/4"	3/32"	.82	5.00
6041-A	4-40	1/4"	3/32"	.82	5.00
6045-B	5-40	5/16"	7/64"	.82	4.91
6042	6-32	1/4"	3/32"	.85	5.14
7230	6-32	5/16"	7/64"	.91	5.44
6043	8-32	1/4"	3/32"	.85	5.14
7233	8-32	5/16"	1/8"	.94	5.59
6044	10-32	3/8"	5/64"	.91	5.47
7235	1/4-20	7/16"	3/16"	1.32	7.79
7236	11/32-32	7/16"	1/16"	2.20	13.22
6050-A	3/8-32	3/8"	3/32"	2.29	13.81
7238	7/16-27	9/16"	1/8"	3.59	21.40
6050-B	15/32-32	9/16"	5/64"	3.17	19.10

Brass Hexagon Nuts — Not Plated

7241	2-56	3/16"	1/16"	$ .94	$5.59
7242	3-48	3/16"	1/16"	.94	5.59
7243	4-36	1/4"	3/32"	.97	5.88
7244	4-40	1/4"	3/32"	1.12	6.76
7245	6-32	1/4"	3/32"	1.15	6.91
7248	8-32	5/16"	1/8"	1.15	6.91
7249	10-32	3/8"	1/8"	1.62	9.70

Mounting Nuts — Nickel Plated Steel

Cat. No.	Thread	Size Width	Thickness	Box of 144 Net Price	Box of 1,000 Net Price
7236	11/32-32	7/16" (Rotary Switch Size)	3/32"	$2.20	$13.22
6050-A	3/8-32	9/16" (Volume Control Size)	3/32"	2.29	13.81
7238	7/16-27	9/16" (Pilot Light Size)	1/8"	3.59	21.90
6050-B	15/32-32	9/16" (Toggle Switch Size)	5/64"	3.17	19.10
6050	15/32-32	Round Ring Nut (Toggle Switch Size)	1/16"	2.76	16.50

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Split Type Washers — Cadmium Plated

Cat. No.	Screw Size	O.D.	Thickness	Box of 144 Net Price	Box of 1,000 Net Price
6503	No. 4	3/16"	1/32"	$.56	$3.38
6504	No. 6	15/64"	1/32"	.56	3.38
6505	No. 8	11/32"	.025	.56	3.38
6506	No. 10	5/16"	.050	.56	3.38
6507	No. 1/4"	7/16"	5/64"	.82	5.00

Spring Friction Washers

Cat. No.	A.	B.	C.	Thickness of Metal	Box of 144 Net Price	Box of 1,000 Net Price
7385	9/64"	5/16"	1/32"	.012	$2.22	$13.23
7386	3/16"	3/8"	1/32"	.008	1.97	11.76
7387	3/16"	7/16"	1/16"	.008	2.59	15.58
7389	1/4"	9/16"	1/16"	.012	2.20	13.23

C-Washer and Retaining Ring Steel — Cadmium Plated

Cat. No.	Shaft Dia.	A.	B.	C.	D.	Box of 144 Net Price	Box of 1,000 Net Price
6182	3/16"	.171	.125	.062	.031	$.88	$5.29
6183	1/4"	.234	.156	.046	.031	.97	5.88
6184	1/4"	.260	.187	.062	.031	1.12	6.62
6185	1/4"	9/32" O.D.	Wire Ring		.029	.45	2.65

Flat Fibre Washers

Cat. No.	Screw Size	I. D.	O. D.	Thickness	Box of 144 Net Price	Box of 1,000 Net Price
6513	No. 6	.136	1/4"	1/32"	$.33	$1.91
6514	No. 8	11/64"	3/8"	1/32"	.39	2.34
6515	No. 10	.196	3/8"	1/32"	.45	2.65
6516	No. 1/4"	1/4"	1/2"	3/64"	.51	3.09
6517	No. 3/8"	3/8"	5/8"	3/64"	.62	3.67
6518	No. 15/32"	15/32"	3/4"	1/32"	.68	3.97

Extruded Fibre Washers

Cat. No.	A.	B.	C.	D.	Screw Size	Box of 144 Net Price	Box of 1,000 Net Price
6525	5/16"	.187	.140	.039	No. 6	$ .91	$5.44
6526	3/8"	.250	.169	.031	No. 8	.91	5.44
6527	7/16"	.255	.196	.032	No. 10	1.00	6.03
6528	1/2"	.375	.250	.032	1/4" Shaft	1.03	6.17
6529	5/8"	.437	.380	.031	3/8" Shaft	1.12	6.76

Rubber Grommets

Cat. No.	A.	B.	C.	D.	E.	Box of 144 Net Price	Box of 1,000 Net Price
1041-2	11/32"	1/8"	3/16"	1/16"	1/4"		
1041	7/16"	3/8"	1/2"	1/16"	5/16"	$1.62	$9.70
1042	9/16"	1/4"	1/2"	1/16"	3/8"	1.62	9.70
7566	9/16"	1/2"	5/16"	1/8"	3/8"	1.85	11.02
1043	3/8"	3/8"	1/4"	1/16"	1/2"	1.97	11.76
1043-1	13/16"	1/2"	9/32"	1/16"	5/8"	2.15	12 79
7569	1"	3/8"	1/4"	1/16"	3/4"	3.76	22.64
						3.18	19.10

Pure Rubber Grommets

7582	7/16"	3/16"	7/32"	1/16"	5/16"	$2.03	$12.20
7584	9/16"	1/4"	1/4"	1/16"	3/8"	2.23	13.37

Rubber Chassis Mounts

Cat. No.	A.	B.	C.	D.	E.	Box of 144 Net Price	Box of 1,000 Net Price
7571	3/4"	5/32"	7/32"	1/2"	1/4"	$5.14	$30.88
1031	3/4"	1/8"	7/32"	1/2"	1/4"	5.14	30.88
1032	3/4"	3/16"	1/2"	7/16"	3/16"	6.85	41.01
1033	3/4"	11/16"	3/4"	7/16"	3/16"	8.08	48.52
1037	3/4"		9/32"		1/4"	5.14	30.88
1034	1"	3/8"	1/2"	1/2"	1/4"	8.47	50.88
1035	1 1/4"	11/16"	7/8"	1/2"	5/16"	16.60	99.68
1036	1 1/4"		3/8"		1/4"	7.20	43.22

Chassis Felt Feet — Screw Type

Cat. No.	A.	B.	C.	Screw Size		
1086-B	1/2"	3/16"	1/2"	No. 6 x 1/2" Sheet	$9.06	$54.40
1087	1/2"	3/16"	1/2"	6-32 Machine	8.58	51.46
1088	3/4"	1/4"	1/2"	No. 6 x 1/2" Sheet	10.27	61.48
1089	3/4"	1/4"	1/2"	10-32 Machine	10.69	62.68

GENERAL CEMENT
ELECTRONIC HARDWARE

Metal Washers — Nickel Plated

Cat. No.	Screw Size	Hole Size	O.D.	Box of 144 Net Price	Box of 1,000 Net Price
6154	No. 4	1/8"	9/32"	$ .36	$2.06
6155	No. 6	5/32"	3/8"	.39	2.20
6156	No. 8	3/16"	7/16"	.50	2.50
7306	No. 10	13/64"	3/8"	.42	2.50
7307	No. 10	13/64"	7/16"	.42	2.50
6157	No. 10	13/64"	1/2"	.42	2.50
7308	No. 12	.228	7/16"	.48	2.79
6158	No. 1/4"	9/32"	5/8"	.48	2.79
7311	No. 1/4"	17/64"	1/2"	.48	2.79
7312	No. 5/16"	5/16"	11/16"	.53	3.09

Rivets — Nickel Plated

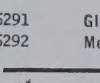
Cat. No.	Shank Diameter	Length Under Head	Box of 144 Net Price	Box of 1,000 Net Price
7276	.059	5/32"	$1.00	$6.03
7277	.059	3/16"	1.00	6.03
7278	.059	1/4"	1.03	6.17
7280	.088	3/16"	1.00	6.03
7283	.098	3/16"	1.00	6.03
7286	.121	1/8"	1.15	6.91
7288	.121	3/16"	1.15	6.91
7290	.121	1/4"	1.15	6.91
7291	.121	5/16"	1.41	8.53
7293	.121	1/2"	1.41	8.53
7296	.146	5/16"	1.53	9.11

Snap-In Trimounts

Cat. No.	To Fit Hole	Box of 144 Net Price	Box of 1,000 Net Price
1721	1/8"	$1.32	$7.94
1722	1/8"	1.32	7.94
1723	.136	1.53	9.11
1724	.136	1.67	9.70
1726	5/32"	1.97	11.76
1727	5/32"	2.20	13.23

Grid Caps — Nickel Plated

Cat. No.		Box of 144 Net Price	Box of 1,000 Net Price
6291	Glass Tube Grid Caps	$1.41	$8.53
6292	Metal Tube Grid Caps	1.41	8.38



Hair Pin Cotters

Cat. No.	A.	B.	C.	Box of 144 Net Price	Box of 1,000 Net Price
7375	9/32"	1/16"	.026	$.45	$2.50
7376	3/8"	1/16"	.026	.45	2.50
7377	13/32"	3/32"	.026	.45	2.50
7378	1/2"	3/32"	.026	.45	2.50
7379	21/32"	3/16"	.032	.48	2.65

SUN RADIO is an authorized industrial distributor. Check with us for quantity prices.

R. C. A. BATTERIES

PORTABLE "A" TYPES

Cat. No,	Volt	L. W. or Dia.		Ht.	Burgess Equiv.	Net Ea.
VS002	4½	4		1⅜	4¹⁵⁄₁₆ G3	.67
VS004	1½	2⅝		2⅝	4¼ 4F	.81
VS005	1½	3¹³⁄₁₆		1⅜	5⅜ 4FL	1.27
VS009	6	2⅝		2⅝	4¼ F4PI	.81
VS010	6	3⅞		2¹³⁄₁₆	5½ 2F4	1.72
VS011	6	3⅞		1⅞	10¾ 2F4L	1.93
VS035■	1½	—		1	1¹⁵⁄₁₆ 1	.0975
VS036■	1½	—		1⅝	2⅜ 2R	.0975
VS065	7½	2⅝		2	3¹⁄₁₆ C5	.70
VS067	4½	4		1⅜	4¼ F3	.63
VS068	6	1¾		1¾	2⅜ Z4	.53
VS069	1½	2⅜		1⅝	2⅞ 2D	.45
VS072	4½	3¹⁵⁄₁₆		1⅝	2¹⁵⁄₁₆ D3	.53
VS129	7½	4¹⁄₁₆		⅝	3 B5	.77
VS236■	1½	—		1⅜	4⅜ 21R	.21

■ Sealed-in-Steel.

PORTABLE "B" TYPES

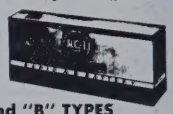
Cat. No,	Volt	L. W. or Dia.		Ht.	Burgess Equiv.	Net Ea.
VS012	45	4¼		2⅝	5⅝ B30	2.46
VS013	45	3⅜		1¹³⁄₁₆	5½ M30	1.93
VS014	45	3⅜		2¼	4⅜ A30	1.75
VS015	22½-45	3		2¼	4 Z30	2.45
VS016	67½	2¾		1⅜	3¾ XX45	2.07
VS055	45	2¹¹⁄₁₆		1	3¹³⁄₁₆ XX30	1.42
VS082	67½	2¹³⁄₁₆		1⅛	2⅞ K45	1.93
VS084	22½	1³⁄₃₂		⅜	2 U15	.87
VS086	45	1¾		⅜	3⅜ U30	1.85
VS090	90	3¹¹⁄₁₆		1⅜	3¾ N60	2.52
VS215	67½	1¹⁵⁄₁₆		1	5⅛ P45M	2.28
VS216	67½	1¹³⁄₁₆		1³⁄₃₂	5⅜ P45	2.71
VS217	75	1⅞		1½	6½ XX50	2.46
VS218	67½	1¹³⁄₁₆		1	5⅛ P45	1.76

PORTABLE "A-B" TYPES

Cat. No,	Volt	L. W. or Dia.		Ht.	Burgess Equiv.	Net Ea.
VS019	7½-9-90	9¾₆		2¾	4⅜ F6A60	4.38
VS038	7½-63	8⅝		2¾	4¹⁄₁₆ G5A42	5.16
VS043	1½-90	5½		2¹¹⁄₁₆	7⅛ 5DA60	4.26
VS046	6-75	12⅝		2¾	4⅛ G4B50	4.17
VS047	9-90	13⅝		2¾	4⅝ G6B60	4.65
VS050	6-7½-75	8⅝₆		2⅛	3¹¹⁄₁₆ T5Z50	3.85
VS052	1½-61½	9¾		2¹¹⁄₁₆	3⅞ 4GA41	3.40
VS053	1½-63	9⅛		2	4¾ 4GA42	3.40
VS054	1½-90	10		2⅝	4¹³⁄₁₆ 6TA60	4.36
VS057W	7½-9-90	8¹³⁄₁₆		2⅜	3¾ T6Z60	4.38
VS058	9-90	9½		2¾	4⅜ F6A60P	4.38
VS059	9-90	8¹³⁄₁₆		2⅜	3¾ T6Z60P	4.17
VS064	1½-90	7¾		2⅜	3⅝ 4TZ60	3.68

FLASHLIGHT and LANTERN TYPES

Cat. No.	Volt	L. W. or Dia.		Ht.	Burgess Equiv.	Net Ea.
VS034	1½	—		5⁄₁₆	2 Z	.08
VS035■	1½	—		1	1¹³⁄₁₆ 1	.0975
VS036■	1½	—		1⅝	2⅜ 2	.0975
VS040C	6	2¹¹⁄₁₆		2¹¹⁄₁₆	4⅜ F4H	.61
VS040S	6	2¹¹⁄₁₆		2¹¹⁄₁₆	4⅜ F4BP	.61
VS073	1½	—		⅜	1¾ N	.065
VS138	3	3⅞		2¹¹⁄₁₆	5⅞ 4F2H	1.00



FARM "AB" and "B" TYPES

Cat. No,	Volt	L. W. or Dia.		Ht.	Burgess Equiv.	Net Ea.
VS022	1½-90	15¾		4¼	6¹³⁄₁₆ 17GD60	6.71
VS026	22½-45	8⅛		3⅜	7⅜ 2308PI	2.42
VS045	1½-90	12⅛		5⅜	6¹³⁄₁₆ 18GD60	5.96
VS119	7½-9-90	8¼		4½	13¾ —	6.20

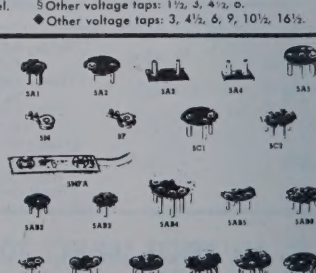
INDUSTRIAL and SPECIAL-PURPOSE TYPES

Cat. No.	Volt	L. W. or Dia.		Ht.	Burgess Equiv.	Net Ea.
VS006C	1½	—		2⅜	6⅝ —	.59
VS006S	1½	—		2⅜	6⅜ 6IGN	.60
VS026	22½-45	8⅛		3⅜	7⅜ 2308PI	2.42
VS028	4½	2⅜		1³⁄₁₆	2⅞ 5360	.45
VS029	7½§	3¹⁵⁄₁₆		⅞	3¼ 5540	.77
VS030	3-4½	3¹⁵⁄₁₆		1¾	2⅞ 2370PI	.66
VS031	3-4½-16½-22½	4		2½	3 5156PI	1.51
VS039	6	10⅜		2⅞	7⅜ S461	2.51
VS070	1½	—		1⅝	4¼ 8R	.20
VS083	15	1³⁄₃₂		⅝	1⅞ U10	.65
VS085	30	1³⁄₃₂		⅝	2⅜ U20	1.03
VS087	21	—		1³⁄₃₂	3⅜ —	1.52
VS088	21	—		1⅝	3⅞ —	2.06
VS093	300	2⅝		2⅜	3¹³⁄₁₆ U200	7.70
VS100	3	2⅜		1⅜	4⅜ F2BP	.65
VS101	1½	2⅜		1⅜	4⅜ 2FBP	.65
VS102	22½	3⅜		2⅛	2¾ 4156	1.39
VS103	6	8⅝		2¹³⁄₁₆	6⅜ 4F4H	2.45
VS106	1½	2¹¹⁄₁₆		2¹¹⁄₁₆	4⅜ 4FH	.61
VS112	22½-45	4⅛		2⅝	5⅞ 5308	2.31
VS114	22½-45	3		1⅞	4¹³⁄₁₆ Z30NX	2.14
VS126	22½-45	8⅛		3¼	7⅞ 2308SC	2.56
VS127	22½-45	8		4	7⅜ 10308SC	3.63
VS127W	22½-45	8		4	7⅜ 10308SC(P)	3.63
VS130	1½-3-4½	3¹⁵⁄₁₆		1⅜	3 2370ST	.66
VS131	22½◆	4¼		2½	3⅝ 5156SC	1.58
VS133	4½	2⅜		1⅜	2⅞ 532	.39
VS134	3	1⅞		¾	2⅛ 422	.32
VS136	3	2¹¹⁄₁₆		2¹¹⁄₁₆	4⅜ 2F2H	.67
VS139	7½	7¼		4	6⅜ 4F5H	3.16
VS140	9	8½		4¼	6⅜ 4F6H	3.62
VS141	1½	2⅝		1⅝	4¼ 2F	.52
VS142	4½	2		¾	2⅜ 432	.39
VS157	22½-45	8⅛		4⅜	7¹¹⁄₁₆ 21308SC	3.90

■ Sealed-in-Steel. ◆ Wax coated.
§ Other voltage taps: 1½, 3, 4½, 6, 9, 10½, 16½.

CINCH BATTERY PLUGS

Part Number	Voltage	Net Each
5A1	1½ "A"	$ .04
5A2	3 "A"	.05
5A3	4½ "A"	.04
5A4	6 "A"	.04
5A5	7½ "A"	.06
5B1A	45 "B" Small	.05
5B2	45 "B" Large	.05
5M	67½ "B"	.03
5F	67½ "B"	.04
5MFA	67½ "B"	.21
5C1	4½ "C"	.07
5C2	22½ "C"	.08
5AB1	1½ "A"-90 "B"	.07
6K4	9 "A"-90 "B"	.06
5AB2	1½ "A"-63-90 "B"	.05
5AB3	6 "A"-90 "B"	.06
5AB4	6 "A"-90 "B"	.09
5AB5	6 "A"-90 "B"	.07
5AB6	7½ "A"-90 "B"	.08
5AB7	9 "A"-90 "B"	.09
5AB8	9 "A"-90 "B"	.08



ALPHA WIRE

PLASTIC HOOK-UP WIRE—SPECIFICATION MIL-W-76A
(superseding JAN-C-76)

TYPE MW (MEDIUM WALL)—superseding SRIR

DESCRIPTION: Single conductor stranded or solid tinned copper, thermoplastic insulation.

STRANDED

ALPHA NO.	MIL-W-76A TYPE DESIGNA.	COND. SIZE	COND. STRAND	NOM. INSUL.	VOLT. RATE.	NOM. O.D.	STAND P.U.	*STOCK COLORS	Net Ea 100-Ft.	Net Ea. 1000-Ft.
1550	MW-C 24(7)U	24	7/32	.016"	1000	.059"	1000'	1 thru 22	$ .98	$8.23
1551	MW-C 22(7)U	22	7/30	.016"	1000	.064"	1000'	1 thru 30	1.03	8.53
1553	MW-C 20(10)U	20	10/30	.016"	1000	.073"	1000'	1 thru 30	1.27	10.88
1555	MW-C 18(16)U	18	16/30	.016"	1000	.084"	1000'	1 thru 22	1.47	13.52
1557	MW-C 16(26)U	16	26/30	.016"	1000	.095"	1000'	1 thru 22	2.31	21.02
1559	MW-C 14(41)U	14	41/30	.016"	1000	.110"	1000'	1 thru 22	3.33	31.16
1560	MW-C 12(65)U	12	65/30	.016"	1000	.125"	1000'	1 thru 22	5.58	54.54

SOLID

1561	MW-C 22(1)U	22	1	.016"	1000	.060"	1000'	1 thru 22	.88	7.00
1563	MW-C 20(1)U	20	1	.016"	1000	.066"	1000'	1 thru 22	1.02	8.92
1565	MW-C 18(1)U	18	1	.016"	1000	.074"	1000'	1 thru 10	1.27	11.42

*STOCK COLORS
(1) WHITE
(2) BLACK
(3) RED
(4) GREEN
(5) YELLOW
(6) LIGHT BLUE
(7) BROWN
(8) ORANGE
(9) GRAY (slate)
(10) VIOLET (purple)
(11) TAN
(12) PINK
(13) DARK BLUE
(14) WHITE / BLACK
(15) WHITE / RED
(16) WHITE / GREEN
(17) WHITE / YELLOW
(18) WHITE / BLUE
(19) WHITE / BROWN
(20) WHITE / ORANGE
(21) WHITE / GRAY
(22) WHITE / VIOLET
(23) WHITE / BLACK RED
(24) WHITE / BLACK / GREEN
(25) WHITE / BLACK / YELLOW
(26) WHITE / BLACK / BLUE
(27) WHITE / BLACK / BROWN
(28) WHITE / BLACK / ORANGE
(29) WHITE / BLACK / GRAY
(30) WHITE / BLACK / VIOLET

DESCRIPTION: Single conductor stranded tinned copper, light wall thermoplastic insulation.

PLASTIC HOOK-UP WIRE — SPECIFICATION MIL-W-76A
(superseding JAN-C-76)

*STOCK COLORS
(1) WHITE
(2) BLACK
(3) RED
(4) GREEN
(5) YELLOW
(6) LIGHT BLUE

TYPE LW (LIGHT WALL)

ALPHA NO.	MIL-W-76A TYPE DESIGNA.	COND SIZE	COND. STRAND	NOM. INSUL.	VOLT. RATE.	NOM. O.D.	STAND. P.U.	*STOCK COLORS	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1685	LW-C 30(7)U	30	7/38	.010"	300	.033"	1000'	1 thru 6	$ .97	$ 8.23
1686	LW-C 28(7)U	28	7/36	.010"	300	.035"	1000'	1 thru 6	.96	8.08
1687	LW-C 26(7)U	26	7/34	.010"	300	.039"	1000'	1 thru 6	.94	7.94

DESCRIPTION: Single conductor stranded tinned copper, heavy wall thermoplastic insulation.

*STOCK COLORS
(1) WHITE
(2) BLACK
(3) RED
(4) GREEN
(5) YELLOW
(6) LIGHT BLUE
(7) BROWN
(8) ORANGE
(9) GRAY (slate)
(10) VIOLET (purple)

TYPE HW (HEAVY WALL)—superseding SRHV

1571	HW-C 22(7)U	22	7/30	.032"	2500	.103"	1000'	1 thru 10	1.47	13.23
1573	HW-C 20(10)U	20	10/30	.032"	2500	.108"	1000'	1 thru 10	1.82	16.70
1575	HW-C 18(16)U	18	16/30	.032"	2500	.120"	1000'	1 thru 10	2.29	21.16
1577	HW-C 16(26)U	16	26/30	.032"	2500	.134"	1000'	1 thru 3	3.16	29.40
1579	HW-C 14(41)U	14	41/30	.045"	2500	.170"	1000'	1 thru 3	3.87	35.08
1651	HW-C 12(65)U	12	65/30	.045"	2500	.190"	1000'	1 thru 3	7.57	72.03
1653	HW-C 10(105)U	10	105/30	.045"	600	.215"	1000'	1 thru 3	10.96	105.84
1655	HW-C 8(133)U	8	133/29	.045"	600	.265"	1000'	1 thru 3	18.01	176.40
1657	HW-C 6(133)U	6	133/27	.045"	600	.310"	1000'	1 thru 3	25.22	248.43

DESCRIPTION: Single conductor stranded tinned copper, thermoplastic insulation, tinned copper shield overall.

SHIELDED PLASTIC HOOK-UP WIRE — SPECIFICATION MIL-W-76A (superseding JAN-C-76)

TYPE MW (MEDIUM WALL) SHIELDED

ALPHA NO.	MIL-W-76A TYPE DESIGNA.	COND. SIZE	COND. STRAND	NOM. INSUL.	VOLT. RATE.	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1350	MW-C 24(7)S	24	7/32	.016"	1000	.075"	$3.01	$27.57
1351	MW-C 22(7)S	22	7/30	.016"	1000	.085"	3.11	28.62
1352	MW-C 20(10)S	20	10/30	.016"	1000	.095"	3.41	31.75
1353	MW-C 18(16)S	18	16/30	.016"	1000	.105"	3.74	34.94
1354	MW-C 16(26)S	16	26/30	.016"	1000	.120"	5.01	47.63
1355	MW-C 14(41)S	14	41/30	.016"	1000	.135"	6.57	63.21
1356	MW-C 12(65)S	12	65/30	.016"	1000	.155"	9.07	88.20

DESCRIPTION: Single conductor stranded tinned copper, thermoplastic insulation, glass braid overall.

*STOCK COLORS
(1) WHITE
(2) WHITE/BLACK
(3) WHITE/RED
(4) WHITE/GREEN
(5) WHITE/YELLOW
(6) WHITE/BLUE
(7) WHITE/BROWN
(8) WHITE/ORANGE
(9) WHITE/GRAY
(10) WHITE/VIOLET
(11) BLACK
(12) RED
(13) GREEN
(14) YELLOW
(15) BLUE
(16) BROWN
(17) ORANGE
(18) GRAY
(19) VIOLET

PLASTIC HOOK-UP WIRE — GLASS BRAID SPECIFICATION MIL-W-76A (superseding JAN-C-76)

TYPE MW (MEDIUM WALL)—GLASS BRAID
(superseding SRIR and WL Glass Braid)

ALPHA NO.	OLD WL NO.	MIL-W-76A TYPE DESIGNA.	COND SIZE	COND. STRAND	NOM. INSUL	VOLT. RATE.	NOM. O.D.	STAND. P.U.	*STOCK COLORS	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1590	1490	MW-C 22(7)B	22	7/30	.016"	1000	.080"	1000'	1 thru 19	$2.21	$20.29
1591	1491	MW-C 20(10)B	20	10/30	.016"	1000	.090"	1000'	1 thru 19	2.45	22.59
1592	1492	MW-C 18(16)B	18	16/30	.016"	1000	.100"	1000'	1 thru 19	2.94	28.08
1593	1493	MW-C 16(26)B	16	26/30	.016"	1000	.115"	1000'	1 thru 19	4.07	38.17
1594	1494	MW-C 14(41)B	14	41/30	.016"	1000	.125"	1000'	1 thru 10	5.59	53.02
1595	1495	MW-C 12(65)B	12	65/30	.016"	1000	.140"	1000'	1 thru 10	9.56	91.97

TYPE HW (HEAVY WALL)—GLASS BRAID
(superseding SRHV—Glass Braid)

1598	1496	HW-C 10(105)B	10	105/30	.045"	600	.235"	1000'	1 thru 3	12.87	124.95
1599	——	HW-C 8(133)B	8	133/29	.045"	600	.290"	1000'	1 thru 3	20.22	198.45
1599/6	——	HW-C 6(133)B	6	133/27	.045"	600	.340"	1000'	1 thru 3	27.57	271.95

DESCRIPTION: Single conductor stranded tinned copper, thermoplastic insulation, lacquered glass braid, tinned copper shield overall.

SHIELDED HOOK-UP WIRE—SPECIFICATION MIL-W-76A GLASS BRAID OVER PLASTIC INSULATION
(superseding JAN-C-76)

TYPE MW (MEDIUM WALL)—GLASS BRAID, SHIELDED

ALPHA NO.	MIL-W-76A TYPE DESIGNA.	COND. SIZE	COND. STRAND	NOM. INSUL.	VOLT. RATE.	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1361	MW-C 22(7)BS	22	7/30	.016"	1000	.095"	$4.22	$39.69
1362	MW-C 20(10)BS	20	10/30	.016"	1000	.108"	4.62	43.74
1363	MW-C 18(16)BS	18	16/30	.016"	1000	.124"	5.03	47.78
1364	MW-C 16(26)BS	16	26/30	.016"	1000	.133"	6.13	58.80
1365	MW-C 14(41)BS	14	41/30	.016"	1000	.144"	8.48	82.32
1366	MW-C 12(65)BS	12	65/30	.016"	1000	.168"	12.45	122.00
1367	MW-C 10(105)BS	10	105/30	.045"	600	.265"	17.89	176.40

DESCRIPTION: Single conductor stranded tinned copper, thermoplastic insulation, nylon jacket overall.

*STOCK COLORS:
(1) WHITE
(2) BLACK
(3) RED
(4) GREEN
(5) YELLOW
(6) BLUE
(7) BROWN
(8) ORANGE
(9) GRAY
(10) VIOLET
(11) WHITE / BLACK
(12) WHITE / RED
(13) WHITE / GREEN
(14) WHITE / YELLOW
(15) WHITE / BLUE
(16) WHITE / BROWN
(17) WHITE / ORANGE
(18) WHITE / GRAY
(19) WHITE / VIOLET

PLASTIC HOOK-UP WIRE — NYLON JACKET SPECIFICATION MIL-W-76A (superseding JAN-C-76)

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

TYPE MW (MEDIUM WALL)—NYLON JACKET
(superseding WL-Nylon Jacket)

ALPHA NO.	MIL-W-76A TYPE DESIGNA.	COND. SIZE	COND. STRAND	NOM. INSUL.	VOLT. RATE.	NOM. O.D.	STAND. P.U.	*STOCK COLORS	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1504	MW-C 22(7)J	22	7/30	.016"	1000	.075"	1000'	1 thru 19	$1.62	$14.50
1505	MW-C 20(10)J	20	10/30	.016"	1000	.090"	1000'	1 thru 19	1.76	15.73
1506	MW-C 18(16)J	18	16/30	.016"	1000	.103"	1000'	1 thru 19	2.35	21.02
1507	MW-C 16(26)J	16	26/30	.016"	1000	.115"	1000'	1 thru 19	3.09	28.81
1508	MW-C 14(41)J	14	41/30	.016"	1000	.125"	1000'	1 thru 6	3.99	35.87
1509	MW-C 12(65)J	12	65/30	.016"	1000	.140"	1000'	1 thru 3	5.37	49.83

DESCRIPTION: Single conductor stranded tinned copper, 100°C high temperature vinyl thermoplastic light wall insulation.

STOCK COLORS:
1—WHITE
2—BLACK
3—RED
4—GREEN
5—YELLOW
6—BLUE
7—BROWN
8—ORANGE
9—GRAY
10—VIOLET

HIGH TEMPERATURE PLASTIC HOOK-UP WIRE — SPECIFICATION MIL-W-16878A

APPLICATIONS: For miniature and sub-miniature high temperature hook-ups.

ALPHA NO.	MIL TYPE DESIGNATION	COND. SIZE	COND. STRAND	NOMINAL INSULATION	VOLTAGE RATING	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1851	B-30	30	7/38	.010"	600	.032"	$1.17	$9.19
1852	B-28	28	7/36	.010"	600	.035"	1.21	9.56
1853	B-26	26	7/34	.010"	600	.038"	1.26	10.14
1854	B-24	24	7/32	.010"	600	.043"	1.35	11.02
1855	B-22	22	7/30	.010"	600	.049"	1.40	11.47

Due to the fluctuating prices of the copper market, the wire prices in this Catalog No. 56 of Radio & Electronic Supplies are subject to change without notice.

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

ALPHA WIRE

SHIELDED MICROPHONE CABLE

DESCRIPTION: Each conductor stranded tinned copper, polyethylene insulation, color coded, braided tinned copper shield, chrome colored vinyl plastic jacket overall.

CHARACTERISTICS: Oil and moisture resistant. Flexible. Will not stain or mark. Will resist aging and rough usage. Capacitance—Low Insulation Resistance—High Attenuation—Low

PLASTIC

APPLICATIONS: All high impedance microphones—Lapel, Ribbon, Velocity, Crystal, Contact. Hi-Fi interconnecting cables.

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL CAPACITY	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1703	1	24	10/34	38 mmf./ft.	.145"	$3.68	$34.26
1704	1	24	10/34	25 mmf./ft.	.200"	3.66	44.10
1706	1	20	26/34	39 mmf./ft.	.175"	5.54	52.92

COLOR CODE OF CONDUCTOR: WHITE

APPLICATIONS: All low impedance microphones—Carbon, Condenser, Dynamic.

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL CAPACITY	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1710	2	22	16/34	31 mmf./ft.	.235"	6.62	63.66
1713	3	20	26/34	39 mmf./ft.	.295"	13.04	127.88
1715	4	20	26/34	43 mmf./ft.	.320"	14.80	145.54

COLOR CODE OF CONDUCTORS: 1—WHITE, 2—BLACK, 3—RED, 4—GREEN

DESCRIPTION: Each conductor stranded tinned copper, rubber insulation, color coded, braided tinned copper shield, cotton wrap, tough black rubber jacket over all. It is extremely flexible and specially designed for heavy studio use.

RUBBER

APPLICATIONS: All high impedance microphones. Broadcast and heavy duty studio use.

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL CAPACITY	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1248	1	20	26/34	40 mmf./ft.	.175"	$6.13	$61.30
1249	1	20	26/34	30 mmf./ft.	.245"	7.20	72.00
1249/18	1	18	41/34	45 mmf./ft.	.250"	9.21	92.10

COLOR CODE OF CONDUCTOR: BLACK

APPLICATIONS: All low impedance microphones. Broadcast and heavy duty studio use.

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL CAPACITY	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1250	2	20	26/34	70 mmf./ft.	.275"	7.49	74.90
1250/18	2	18	41/34	75 mmf./ft.	.305"	11.71	117.10
1251	3	20	26/34	80 mmf./ft.	.285"	11.85	118.50
1251/18	3	18	41/34	85 mmf./ft.	.325"	18.67	186.70
1252	4	20	26/34	90 mmf./ft.	.305"	13.38	133.80

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—WHITE, 3—RED, 4—GREEN

DESCRIPTION: Each conductor stranded tinned copper, rubber insulation, color coded, conductors twisted, braided tinned copper shield, cotton wrap, tough black rubber jacket overall.

SHIELDED MULTI-CONDUCTOR CABLE (Rubber Jacket)

APPLICATIONS: Shielded electronic power cable. Control circuits. Video and audio interconnecting cable. Broadcast and heavy duty studio use

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1253	5	20	26/34	.020"	.340"	$15.88	$158.80
1254	6	20	26/34	.020"	.365"	18.36	183.60
1254/18	6	18	41/34	.020"	.430"	30.87	308.87
1255	7	20	26/34	.020"	.370"	21.17	211.70
1255/8	8	20	26/34	.020"	.400"	24.21	242.10

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—WHITE, 3—RED, 4—GREEN, 5—YELLOW, 6—BLUE, 7—BROWN, 8—ORANGE

DESCRIPTION: Each conductor 20 AWG stranded tinned copper, cotton wrap, rubber insulation, color coded, conductors twisted, cushioned with cotton fillers, cotton wrap, tough black rubber jacket overall. It is extremely flexible and specially designed for heavy studio use.

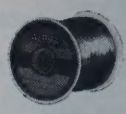
UNSHIELDED MULTI-CONDUCTOR CABLE (Rubber Jacket)

APPLICATIONS: Inter-rack connecting cable. Recording studio and broadcast. Remote control circuits. Rough usage electronic power cable. P.A. systems. Multiple speaker cable.

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1244	2	20	26/34	.020"	.250"	$7.00	$70.00
1245	3	20	26/34	.020"	.285"	8.62	86.20
1246	4	20	26/34	.020"	.300"	10.29	102.90
1247	5	20	26/34	.020"	.340"	12.64	126.40
1247/8	6	20	26/34	.020"	.370"	15.58	155.80
1247/8	8	20	26/34	.020"	.400"	20.58	205.80

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—WHITE, 3—RED, 4—GREEN, 5—YELLOW, 6—BLUE, 7—BROWN, 8—ORANGE

DESCRIPTION: Pure electrolytic solid or stranded copper properly annealed and tinned for quick soldering.



TINNED COPPER WIRE SOLID

APPLICATIONS: Winding of coils. Antennas. Point to point wiring. Bus-bar. Component leads. Ground wire.

ALPHA NO.	COND. SIZE	CIRCULAR MIL AREA	NOM. O.D.	Net Ea. 1000-Ft.
299/5	34 AWG	39.75	.006"	$2.94
299/4	32 AWG	63.21	.008"	3.02
299/3	30 AWG	100.5	.010"	3.09
299/2	28 AWG	159.8	.013"	3.17
299/1	26 AWG	254.1	.016"	3.53
299	24 AWG	404.0	.020"	3.82
298	22 AWG	642.4	.025"	3.31
297	20 AWG	1022	.033"	5.08
296	18 AWG	1642	.040"	8.23
295	16 AWG	2583	.051"	10.29
289	12 AWG	6530	.082"	20.66
282	10 AWG	10380	.103"	33.37
282/8	8 AWG	16510	.129"	76.44
282/6	6 AWG	26250	.162"	114.66

DESCRIPTION: Very fine soft annealed tinned copper wires braided and rolled flat.

TINNED COPPER SHIELDING

ALPHA NO.	SIZES OF WIRES	APPROX. I.D.	Net Ea. 50-Ft.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1221	36 AWG	.025"		$2.90	$26.46
1222	36 AWG	.035"		2.95	27.00
1223	36 AWG	3/64"		3.11	28.62
1224	36 AWG	3/32"		3.19	29.40
2229	36 AWC	7/64"	$1.47		
1229	36 AWG	1/8"	1.57		
1230	36 AWG	3/16"	2.05		
1231	36 AWG	1/4"	2.45		
1232	36 AWG	3/8"	3.97		
1233/2	36 AWG	1/2"	5.24		
1233	36 AWG	5/8"	5.57		
2234	36 AWG	25/32"	12.13		
1235	36 AWG	1"	12.74		
1239	36 AWG	1-3/8"	16.54		

DESCRIPTION: Single conductor extra flexible tinned soft annealed copper, concentric strand, cotton wrap, rubber insulation, satin finish.

STOCK COLORS: RED BLACK

KINKLESS TEST LEAD WIRE

APPLICATIONS: As test leads in analyzers, oscillators, multi-meters, and all other types of testing apparatus or wherever an Extra Flexible insulated wire is required. Heavy Duty type designed for television, therapeutic equipment, analyzers, oscillators, etc.

STANDARD TYPE

ALPHA NO.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	VOLTAGE BREAKDOWN (60 CYCLES)	NOM. O.D.	STANDARD PUT-UP	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
9635	20	41/36	.044"	8,500	.135"	500'	$1.76	$16.33
1635	20	41/36	.047"	10,000	.140"	500'	2.21	20.29
1636	18	65/36	.047"	12,000	.150"	500'	2.74	25.48

HEAVY DUTY TYPE

1638	18	65/36	.109"	22,000	.245"	500'	4.99	46.75

DESCRIPTION: **UNSHIELDED**—Single conductor stranded tinned copper, special white polyethylene insulation.

DESCRIPTION: **SHIELDED**—Single conductor 18 AWG stranded tinned copper, special white polyethylene insulation, tinned copper shield overall.

HI-VOLTAGE & CATHODE RAY WIRE

APPLICATIONS: Designed for high-voltage leads for all applications, especially for cathode ray tubes in television receivers and oscilloscopes. Shielded type used to minimize RF radiation in transmitters, X-ray and diathermy equipment. CHARACTERISTICS: High dielectric strength. Resistant to heat, flame and moisture.

UNSHIELDED

ALPHA NO.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	VOLTAGE RATING	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft
1641	20	10/30	.047"	10,000	.125"	2.35	23.50
1642	20	10/30	.063"	20,000	.170"	3.31	33.10
1645	18	16/30	.095"	40,000	.230"	7.35	73.50

SHIELDED

1649	18	16/30	.095"	40,000	.260"	12.05	120.50

Due to the fluctuating prices of the copper market, the wire prices in this Catalog No. 56 of Radio & Electronic Supplies are subject to change without notice.

ALPHA WIRE

DESCRIPTION: Single or multi-conductor stranded tinned copper, 105°C high temperature vinyl thermoplastic insulation.

When jacketed, a clear vinyl thermoplastic jacket is over cabled conductors.

SUB-MINIATURE WIRE AND CABLE — HIGH TEMP. 105°C

APPLICATIONS: Wherever a fine hook-up wire is required for: instrumentation projects, electro-medical apparatus, computers, transistor circuits, photo-electric cell circuits, sub-miniaturization programs, strain gauges,, slip ring assemblies.

UNSHIELDED

SINGLE CONDUCTOR

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM. O.D	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1606	1	30	7/38	.010"	—	.032"	$1.06	$8.08
1607	1	28	7/36	.010"	—	.035"	1.11	8.62
1609	1	26	7/34	.010"	—	.038"	1.17	9.19
1610	1	24	16/36	.016"	—	.056"	1.43	11.76

STOCK COLORS: 1—WHITE 2—BLACK 3—RED 4—GREEN 5—YELLOW 6—BLUE 7—BROWN 8—ORANGE 9—GRAY 10—VIOLET

MULTI-CONDUCTOR (no jacket overall)

2606	2	30	7/38	.010"	—	.061"	2.45	22.05
3606	3	30	7/38	.010"	—	.067"	3.78	35.28
4606	4	30	7/38	.010"	—	.075"	4.51	42.63

COLOR CODE OF CONDUCTORS: 1—BLACK 2—RED 3—WHITE 4—GREEN

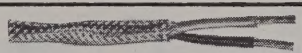
MULTI-CONDUCTOR (plastic jacket overall)

2607	2	28	7/36	.010"	.010"	.081"	2.90	26.46
3607	3	28	7/36	.010"	.010"	.088"	4.22	39.69
4607	4	28	7/36	.010"	.010"	.097"	5.40	51.45

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—RED, 3—WHITE, 4—GREEN

Single or multi-conductor stranded tinned copper, 105°C high temperature vinyl thermoplastic insulation, tinned copper shield.

When jacketed, a clear vinyl thermoplastic jacket is over tinned copper shield.



DESCRIPTION:

SHIELDED

SINGLE CONDUCTOR (no jacket overall)

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1332	1	30	7/38	.010"	—	.055"	$4.22	$39.69
1334	1	28	7/36	.010"	—	.059"	4.06	38.07
1336	1	26	7/34	.010"	—	.063"	3.85	36.02
1337	1	24	16/36	.016"	—	.075"	3.74	34.94

MULTI-CONDUCTOR (no jacket overall)

2337	2	24	16/36	.016"	—	.118"	4.66	44.10
3337	3	24	16/36	.016"	—	.125"	5.65	54.39
4337	4	24	16/36	.016"	—	.145"	6.86	66.15

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—RED, 3—WHITE, 4—GREEN

MULTI-CONDUCTOR (plastic jacket overall)

2334	2	28	7/36	.010"	.010"	.138"	4.95	47.04
3334	3	28	7/36	.010"	.010"	.146"	6.30	58.80
4334	4	28	7/36	.010"	.010"	.165"	7.45	72.03

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—RED, 3—WHITE, 4—GREEN

DESCRIPTION: Each conductor 22 AWG stranded tinned copper, plastic insulation, color coded, conductors twisted, gray vinyl plastic jacket overall. Suitable for outdoor installations.

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—RED, 3—WHITE, 4—GREEN, 5—ORANGE, 6—BLUE, 7—BROWN, 8—YELLOW, 9—PURPLE, 10—SLATE, 11—PINK, 12—TAN

MULTI-CONDUCTOR FLEXIBLE CABLE

APPLICATIONS: Unbalanced intercom systems. Low voltage relay control cable. P.A. systems. Signal systems. Electronic computer cable.

PLASTIC JACKET

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1172	2	22	7/30	.010"	.020"	.150"	$1.99	$19.90
1173	3	22	7/30	.010"	.020"	.155"	2.58	25.80
1174	4	22	7/30	.010"	.020"	.185"	3.08	30.80
1175	5	22	7/30	.010"	.020"	.190"	3.75	37.50
1176	6	22	7/30	.010"	.020"	.195"	5.44	54.40
1177	7	22	7/30	.010"	.020"	.230"	6.17	61.70
1178	8	22	7/30	.010"	.020"	.245"	6.62	66.20
1179	9	22	7/30	.010"	.020"	.250"	7.20	72.00
1180	10	22	7/30	.010"	.020"	.255"	8.53	85.30
1181	12	22	7/30	.010"	.020"	.280"	9.99	99.90

DESCRIPTION:

MIL-W-5086 — Single conductor stranded tinned copper, white plastic insulation, nylon jacket overall. Superseding AN-J-C-48A

MIL-C-7078 — Single conductor stranded tinned copper, white plastic insulation, nylon jacket, braided tinned copper shield overall. Superseding AN-C-168

PLASTIC NYLON JACKETED HOOK-UP WIRE — SPECIFICATIONS MIL-W-5086 AND MIL-C-7078

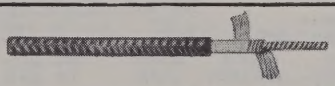
APPLICATIONS: Use wherever a single conductor, 600 volt insulated, aircraft electrical wire is needed. Resistant to: abrasion, moisture, cold, heat, flame, fungus, oil, salt water.

UNSHIELDED (MIL-W-5086)

ALPHA NO.	MIL TYPE DESIGNATION	COND. SIZE	COND. STRAND	VOLTAGE RATING	NOM. O.D	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1381	AN-22	22	19/34	600	.080"	$2.16	$19.06
1382	AN-20	20	19/32	600	.090"	2.32	20.68
1383	AN-18	18	19/30	600	.105"	2.63	23.81
1384	AN-16	16	19/29	600	.120"	3.43	31.75
1385	AN-14	14	19/27	600	.138"	5.10	48.51
1386	AN-12	12	19/25	600	.157"	6.87	66.15

SHIELDED (MIL-C-7078)

1391	AN-22	22	19/34	600	.100"	4.85	46.01
1392	AN-20	20	19/32	600	.110"	5.33	50.81
1393	AN-18	18	19/30	600	.125"	5.96	57.18
1394	AN-16	16	19/29	600	.140"	7.56	73.06
1395	AN-14	14	19/27	600	.160"	9.22	89.67
1396	AN-12	12	19/25	600	.178"	10.98	107.31



DESCRIPTION: Single conductor stranded or solid tinned copper, heavy wrap of cellulose acetate, cotton braid with flame-retarding lacquer.

*STOCK COLORS 1—BLACK 2—RED 3—GREEN 4—YELLOW 5—BLUE 6—BROWN 7—WHITE 8—ORANGE

COMMERCIAL "CL" PUSHBACK WIRE — COTTON BRAID

STRANDED

ALPHA NO.	COND. SIZE	COND. STRAND	VOLT. BREAKDOWN (60 CYCLES)	NOM. O.D.	STANDARD PUT-UP	*STOCK COLORS	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1460	22	7/30	1000	.065"	1000′	1 thru 8	$1.32	$11.71
1461	20	10/30	1000	.070"	1000′	1 thru 8	1.57	13.67
1462	18	16/30	1000	.082"	1000′	1 thru 8	1.86	17.15
1463	16	26/30	1000	.093"	1000′	1 and 2	2.50	23.23
1464	14	41/30	1000	.105"	1000′	1 and 2	3.33	30.87
			SOLID					
1465	22 Solid	1	1000	.060"	1000′	1 thru 8	1.27	10.73
1466	20 Solid	1	1000	.065"	1000′	1 thru 8	1.42	12.30
1467	18 Solid	1	1000	.075"	1000′	1 thru 8	1.72	15.44
1468	16 Solid	1	1000	.085"	1000′	1 and 2	2.21	19.94
1469	14 Solid	1	1000	.095"	1000′	1 and 2	2.89	26.85

DESCRIPTION:

No. 1200—Single conductor 24 AWG stranded tinned copper, white vinyl plastic insulation, fine close tinned copper shield overall.

No. 1201—Same as **No. 1200** plus cotton braid over shield.

No. 1202—Same as **No. 1200** except two conductors (Black and Red) with shield overall.

DESCRIPTION:

No. 2606-3606. Each conductor 30 AWG stranded tinned copper, plastic insulation, conductors color coded and twisted.

HI-FI INTERCONNECTING CABLE

PHONO WIRE — For wiring phono arm from cartridge to amplifier.

SHIELDED

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1200	1	24	16/36	.010"	.080"	$2.95	$26.98
1201	1	24	16/36	.010"	.095"	3.04	27.93
1202	2	24	16/36	.010"	.115"	4.38	41.31

UNSHIELDED

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOM. O.D.		
2606	2	30	7/38	.010"	.065"	2.46	22.05
3606	3	30	7/38	.010"	.070"	3.78	35.28

COLOR CODE OF CONDUCTORS: 1—WHITE, 2—BLACK, 3—RED

DESCRIPTION:

No. 1977—Two conductors parallel, 18 AWG stranded bare copper, plastic insulation, color coded. UL Type SPT-1 (PO7).

No. 1897—Two conductors 18 AWG stranded tinned copper, plastic insulation, conductors color coded black and red, twisted, gray vinyl plastic jacket overall.

PLASTIC SPEAKER CABLE — From amplifier to speaker(s).

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM. O.D.		
1977	2	18	41/34	—	—	.235" x .130"	2.90	26.46
1897	2	18	16/30	.016"	.020"	.200"	4.16	39.10

STOCK COLORS FOR NO. 1977: 1—BROWN, 2—BLACK, 3—WHITE, 4—GREY, 5—PINK, 6—LIGHT BLUE, 7—YELLOW, 8—GREEN

Due to the fluctuating prices of the copper market, the wire prices in this Catalog No. 56 of Radio & Electronic Supplies are subject to change without notice.

ALPHA WIRE

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—WHITE

DESCRIPTION: No. 1265: Two conductors 18 AWG stranded tinned copper, rubber insulation, color coded, conductors twisted, paper wrap, close tinned copper shield overall. No. 1266: Same as No. 1265 except with waxed cotton braid over shield.

SHIELDED SPEAKER CABLE

APPLICATIONS: Commercial speaker installations. Master control sound systems. Specially designed for long runs.

TINNED SHIELD OVERALL

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1265	2	18	16/30	.032"	.235"	$7.67	$73.21

WAXED COTTON BRAID OVER SHIELD

1266	2	18	16/30	.032"	.260"	8.71	84.08

COLOR CODE OF CONDUCTORS: 1—BROWN, 2—TAN, 3—GRAY

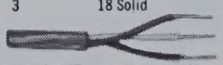
DESCRIPTION: Each conductor solid tinned copper, plastic insulation, color coded, conductors twisted.

2 3 CONDUCTOR UNSHIELDED CABLE

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

WITHOUT PLASTIC JACKET SOLID CONDUCTORS

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
9269	2	22 Solid	1	.016"	.115"	$1.37	$11.27
9270	3	22 Solid	1	.016"	.125"	2.13	18.82
9271	2	20 Solid	1	.016"	.130"	2.07	18.23
9272	3	20 Solid	1	.016"	.140"	2.75	24.99
9273	2	18 Solid	1	.016"	.145"	2.72	24.70
9274	3	18 Solid	1	.016"	.155"	3.80	35.57



COLOR CODE OF CONDUCTORS: 1—BLACK, 2—RED, 3—WHITE

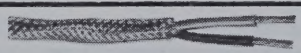
Each conductor tinned copper, plastic insulation, color coded, conductors twisted, gray vinyl plastic jacket overall. Suitable for outdoor installations.

WITH PLASTIC JACKET SOLID CONDUCTORS

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1793	2	22 Solid	1	.010"	.020"	.125"	$2.12	$18.67
1794	3	22 Solid	1	.010"	.020"	.130"	3.06	28.08
1795	2	20 Solid	1	.016"	.020"	.170"	2.99	27.49
1796	3	20 Solid	1	.016"	.020"	.180"	3.78	35.28
1797	2	18 Solid	1	.016"	.020"	.185"	3.95	37.04
1798	3	18 Solid	1	.016"	.020"	.190"	5.44	51.89

STRANDED CONDUCTORS

1893	2	22	7/30	.010"	.020"	.135"	2.63	23.81
1894	3	22	7/30	.010"	.020"	.145"	3.34	30.87
1895	2	20	10/30	.016"	.020"	.180"	3.26	30.14
1896	3	20	10/30	.016"	.020"	.190"	4.23	39.84
1897	2	18	16/30	016"	.020"	.200"	4.16	39.10
1898	3	18	16/30	.016"	.020"	.210"	5.45	52.04



COLOR CODE OF CONDUCTORS: 1—BLACK, 2—RED

DESCRIPTION: Each conductor tinned copper, plastic insulation, color coded, conductors twisted, tinned copper shield overall.

2 CONDUCTOR SHIELDED CABLE (Twisted Pair)

APPLICATIONS: For public address and sound systems. Transmission line. Industrial paging and call systems. Recording equipment. Hospital and school sound installations. Broadcast and audio cable.

WITHOUT PLASTIC JACKET STRANDED CONDUCTORS

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1281	2	24	16/36	.016"	.125"	$4.38	$41.31
1256/22V	2	22	7/30	.016"	.140"	4.19	41.90
1256V	2	20	10/30	.016"	.155"	4.51	45.10
1250V	2	18	16/30	.016"	.180"	5.44	54.40
1260V	2	16	26/30	.020"	.210"	9.36	93.60
1260/14	2	14	41/30	.020"	.235"	11.91	119.10
1260/12	2	12	65/30	.025"	.295"	17.64	176.40

SOLID CONDUCTORS

1267/22V	2	22 Solid	1	.016"	.135"	3.60	33.48
1267V	2	20 Solid	1	.016"	.145"	3.76	35.08
1267/18V	2	18 Solid	1	.016"	.170"	5.37	51.16

COLOR CODE OF CONDUCTORS: 1—BLACK, 2—RED

DESCRIPTION: Each conductor tinned copper, plastic insulation, color coded, conductors twisted, braided copper shield, gray vinyl plastic jacket overall. Suitable for outdoor installations.

WITH PLASTIC JACKET STRANDED CONDUCTORS

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1736	2	22	7/30	.016"	.020"	.175"	$4.42	$41.65
1741	2	20	10/30	.016"	.020"	.195"	5.83	55.86
1746	2	18	16/30	.016"	.020"	.230"	7.16	69.09

SOLID CONDUCTORS

9775	2	22 Solid	1	.016"	.020"	.170"	3.63	33.81
1779	2	20 Solid	1	.016"	.020"	.185"	5.40	51.45
1783	2	18 Solid	1	.016"	.020"	.220"	6.28	60.27

DESCRIPTION: Each conductor 22 AWG tinned copper, plastic insulation, conductors color coded, twisted into pairs, gray vinyl plastic jacket overall. Suitable for outdoor installations.

PLASTIC INTERCOMMUNICATION CABLE (Twisted Pairs)

APPLICATIONS: Balanced intercom systems. Annunciators. Telephones. "Nurses call" systems. Control circuit cable. Electronic computer cable. Multiple speaker cable. Signal systems. "Alarm" systems. Guided missiles.

SOLID CONDUCTORS

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1300	1	2	22 Solid	1	.010"	.020"	.145"	$2.15	$19.06
1302	2	4	22 Solid	1	.010"	.020"	.190"	3.75	34.94
1304	3	6	22 Solid	1	.010"	.020"	.215"	5.22	49.25
1307	6	12	22 Solid	1	.010"	.020"	.280"	7.05	67.62
1307/9	9	18	22 Solid	1	.010"	.020"	.320"	11.96	116.13
1308	10	20	22 Solid	1	.010"	.020"	.345"	12.55	124.66
1308/11	11	22	22 Solid	1	.010"	.020"	.355"	15.17	146.71
1309	13	26	22 Solid	1	.010"	.025"	.365"	17.99	174.93
1309/15	15	30	22 Solid	1	.010"	.025"	.385"	19.53	190.37
1310	16	32	22 Solid	1	.010"	.025"	.395"	20.46	199.48
1312	26	52	22 Solid	1	.010"	.035"	.490"	31.35	308.55
1313	27	54	22 Solid	1	.010"	.035"	.500"	32.99	324.87
1314	51	102	22 Solid	1	.010"	.035"	.650"	96.55	955.50

STRANDED CONDUCTORS

1316	1	2	22	7/30	.010"	.020"	.150"	2.59	23.37
1317	2	4	22	7/30	.010"	.020"	.190"	4.45	42.04
1318	3	6	22	7/30	.010"	.020"	.225"	6.48	62.33
1319	4	8	22	7/30	.010"	.020"	.235"	7.73	74.82
1320	5	10	22	7/30	.010"	.020"	.265"	9.76	95.06
1322	6	12	22	7/30	.010"	.020"	.315"	11.46	112.16
1323	9	18	22	7/30	.010"	.020"	.355"	13.41	131.57
1327	15	30	22	7/30	.010"	.025"	.440"	22.45	221.97
1329	27	54	22	7/30	.010"	.035"	.565"	39.95	396.90

COLOR CODE OF PAIRED CONDUCTORS:

Pair No.	Color Combination
1	Black paired with Red
2	Black paired with White
3	Black paired with Green
4	Black paired with Blue
5	Black paired with Brown
6	Black paired with Yellow
7	Black paired with Orange
8	Red paired with Green
9	Red paired with White
10	Red paired with Blue
11	Red paired with Yellow
12	Red paired with Brown
13	Red paired with Orange
14	Green paired with Blue
15	Green paired with White
16	Green paired with Brown
17	Green paired with Orange
18	Green paired with Yellow
19	White paired with Blue
20	White paired with Brown
21	White paired with Orange
22	White paired with Yellow
23	Blue paired with Brown
24	Blue paired with Orange
25	Blue paired with Yellow
26	Brown paired with Orange
27	Brown paired with Yellow
28	Purple paired with Red
29	Purple paired with White
30	Purple paired with Green
31	Purple paired with Blue
32	Purple paired with Brown
33	Purple paired with Yellow
34	Purple paired with Orange
35	Purple paired with Slate
36	Purple paired with Black
37	Slate paired with Red
38	Slate paired with White
39	Slate paired with Green
40	Slate paired with Blue
41	Slate paired with Brown
42	Slate paired with Yellow
43	Slate paired with Orange
44	Slate paired with Black
45	White/Black paired with Red
46	White/Black paired with Green
47	White/Black paired with Blue
48	White/Black paired with Brown
49	White/Black paired with Yellow
50	White/Black paired with Orange
51	White/Black paired with Purple

DESCRIPTION:

No. 1243/4—Four conductors 22 AWG stranded tinned copper, vinyl plastic insulation, color coded, tinned copper shield over two conductors (paired), two conductors (paired) unshielded, gray vinyl plastic jacket overall.

COLOR CODE OF CONDUCTORS: SHIELDED PAIR—BLACK & WHITE, UNSHIELDED PAIR—BLACK & RED

No. 1243—Same as No. 1243/4 except three conductors, tinned copper shield over only one conductor, two conductors unshielded, gray vinyl plastic jacket overall.

COLOR CODE OF CONDUCTORS: UNSHIELDED—BLACK, RED. SHIELDED—WHITE

PLASTIC INTERCOMMUNICATION CABLE

4 CONDUCTORS (2 SHIELDED—2 UNSHIELDED)

APPLICATIONS: General wiring from station to station where a shielded twisted pair is essential to eliminate cross talk. Balanced master to remote intercom with remote "break-in" feature. Audio imput with control cable. Low impedance cable with switch.

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1243/4	4	22	7/30	.016"	.020"	.315"	$5.71	$54.58

3 CONDUCTORS (1 SHIELDED—2 UNSHIELDED)

APPLICATIONS: General wiring from station to station where a shielded single conductor is essential to eliminate cross talk. Unbalanced master to remote intercom with remote "break-in" feature.

ALPHA NO.	NO. OF COND.	COND. SIZE	COND. STRAND	NOMINAL INSULATION	NOMINAL JACKET	NOM. O.D.	Net Ea. 100-Ft.	Net Ea. 1000-Ft.
1243	3	22	7/30	.016"	.020"	.215"	4.93	46.75

ALPHA E-Z STRIP LINE CORD

Construction:

E-Z strip rubber parallel cord (Type POSJ) with small unbreakable soft rubber attachment plug. Free end stripped and tinned ready to attach. Also available in other lengths.

(UNDERWRITERS APPROVED)

GENERAL PURPOSE: This is the modern and ideal power supply cord for replacement on radios, lamps, fans, etc.

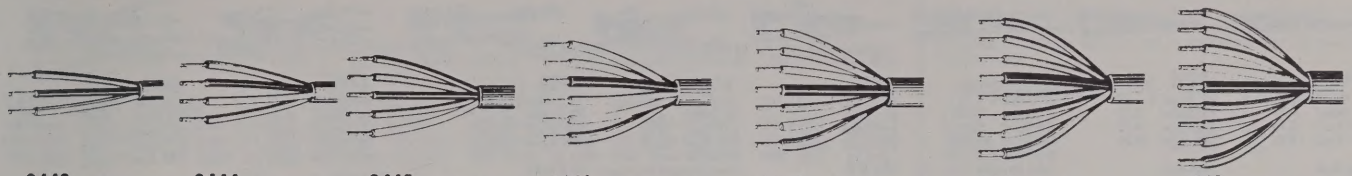
No.	Conductors	Size	Strand	O.D.	Length	Net Ea.
2106	2	18	41/34	.235" x .130"	6'	$ .30
2109	2	18	41/34	.235" x .130"	9'	.38
2112	2	18	41/34	.235" x .130"	12'	.53

Due to the fluctuating prices of the copper market, the wire prices in this Catalog No. 56 of Radio & Electronic Supplies are subject to change without notice.

BELDEN

PLASTIC-INSULATED SOUND SYSTEM CABLES

Single conductors cables, waterproof, weather resistant, outer chrome vinyl jacket. Flexible, light weight and small in diameter for use in control, annunciator and communication circuits.



8443 Net Ea.
100′ Spool $ 2.55
500′ Spool 20.65M
1000′ Spool 20.25M

22 A.W.G.

7x30 **stranded** tinned copper conductor
.010″ vinyl plastic insulation
3 conductors cabled:
Black, Green, Red
.020″ tubed **chrome** vinyl plastic jacket
.140″ Nom. Diam

8444 Net Ea.
100′ Spool $ 3.15
500′ Spool 26.25M
1000′ Spool 25.90M

22 A.W.G.

7x30 **stranded** tinned copper conductor
.010″ vinyl plastic insulation
4 conductors cabled:
Black, Green, Red, White
.020″ tubed **chrome** vinyl plastic jacket
.158″ Nom. Diam

8445 Net Ea.
100′ Spool $ 3.68
500′ Spool 32.25M
1000′ Spool 31.65M

22 A.W.G.

7x30 **stranded** tinned copper conductor
.010″ vinyl plastic insulation
5 conductors cabled:
Black, Brown, Green, Red, White
.020″ tubed **chrome** vinyl plastic jacket
.170″ Nom. Diam

8446 Net Ea.
100′ Spool $ 5.31
500′ Spool 49.37M
1000′ Spool 48.45M

22 A.W.G.

7x30 **stranded** tinned copper conductor
.010″ vinyl plastic insulation

18 A.W.G.

16x30 **stranded** tinned copper conductor
.018″ vinyl plastic insulation

6 conductors cabled:
4 22 A.W.G.: Brown, Blue, Green, White
2 18 A.W.G.: Black, Red
.020″ tubed **chrome** vinyl plastic jacket
.212″ Nom. Diam

8447 Net Ea.
100′ Spool $ 5.91
500′ Spool 55.25M
1000′ Spool 54.23M

22 A.W.G.

7x30 **stranded** tinned copper conductor
.010″ vinyl plastic insulation

18 A.W.G.

16x30 **stranded** tinned copper conductor
.018″ vinyl plastic insulation

7 conductors cabled:
5 22 A.W.G.: Blue, Brown, Green, Orange, White
2 18 A.W.G.: Black, Red
.020″ tubed **chrome** vinyl plastic jacket
.230″ Nom. Diam

8448 Net Ea.
100′ Spool $ 6.41
500′ Spool 60.30M
1000′ Spool 59.25M

22 A.W.G.

7x30 **stranded** tinned copper conductor
.010″ vinyl plastic insulation

18 A.W.G.

16x30 **stranded** tinned copper conductor
.018″ vinyl plastic insulation

8 conductors cabled:
6 22 A.W.G.: Blue, Brown, Green, Orange, White, Yellow
2 18 A.W.G.: Black, Red
.020″ tubed **chrome** vinyl plastic jacket
.235″ Nom. Diam

8449 Net Ea.
100′ Spool $ 7.04
500′ Spool 66.18M
1000′ Spool 65.10M

22 A.W.G.

7x30 **stranded** tinned copper conductor
.010″ vinyl plastic insulation

18 A.W.G.

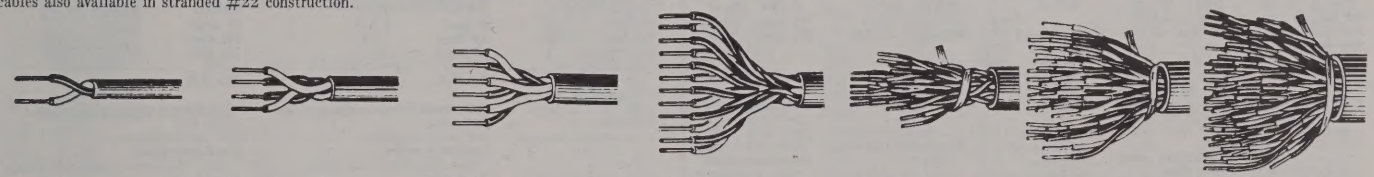
16x30 **stranded** tinned copper conductor
.018″ vinyl plastic insulation

9 conductors cabled:
7 22 A.W.G.: Blue, Brown, Green, Orange, Purple, White, Yellow
2 18 A.W.G.: Black, Red
.020″ tubed **chrome** vinyl plastic jacket
.245″ Nom. Diam

Due to the fluctuating prices of the copper market, the wire prices in this Catalog No. 56 of Radio & Electronic Supplies are subject to change without notice.

PAIRED SOUND SYSTEM CABLES

Belden Intercom Cables are outstanding in their performance and dependablility. Designed for maximum efficiency, performance and as of installation. Six, nine, fifteen and twenty-seven pair cables also available in stranded #22 construction.



8740 Net Ea.
100′ Spool $ 1.89
500′ Spool 16.50M
1000′ Spool 16.50M

22 A.W.G.

Tinned copper conductor, **solid**
.015″ vinyl plastic insulation
1 pair cabled
(2 conductors)
Color coded:
1 (See listing Page 5)
.017″ tubed **chrome** vinyl plastic jacket
.134″ Nom. Diam

8741 Net Ea.
100′ Spool $ 3.08
500′ Spool 28.13M
1000′ Spool 26.63M

22 A.W.G.

Tinned copper conductor, **solid**
.015″ vinyl plastic insulation
2 pair cabled
(4 conductors)
Color coded:
1 through 2 (See listing Page 5)
.020″ tubed **chrome** vinyl plastic jacket
.185″ Nom. Diam

8742 Net Ea.
100′ Spool $ 4.08
500′ Spool 37.13M
1000′ Spool 35.85M

22 A.W.G.

Tinned copper conductor, **solid**
.015″ vinyl plastic insulation
3 pair cabled
(6 conductors)
Color coded:
1 through 3 (See listing Page 5)
.020″ tubed **chrome** vinyl plastic jacket
.220″ Nom. Diam

8743 Net Ea.
100′ Spool $ 6.26
500′ Spool 61.35M
1000′ Spool 61.35M

22 A.W.G.

Tinned copper conductor, **solid**
.010″ vinyl plastic insulation
6 pair cabled
(12 conductors)
Color coded:
1 through 6 (See listing Page 5)
.020″ tubed **chrome** vinyl plastic jacket
.265″ Nom. Diam

8744 Net Ea.
100′ Spool $ 8.64
500′ Spool 81.83M
1000′ Spool 83.33M

22 A.W.G.

Tinned copper conductor, **solid**
.010″ vinyl plastic insulation
9 pair cabled
(18 conductors)
Color coded:
1 through 9 (See listing Page 5)
.020″ tubed **chrome** vinyl plastic jacket
.320″ Nom. Diam

8745 Net Ea.
100′ Spool $15.24
500′ Spool 81.83M
1000′ Returnable Reel 83.33M

22 A.W.G.

Tinned copper conductor, **solid**
.010″ vinyl plastic insulation
15 pair cabled
(30 conductors)
Color coded:
1 through 15 (See listing Page 5)
.025″ tubed **chrome** vinyl plastic jacket
.390″ Nom. Diam

8746
PUT-UP:
To Customers' Specified Length
Lengths To 500′ On Spools
501′ To 1500′ On Returnable Reels
Maximum Length 1500 feet
Net $254.20M

22 A.W.G.

Tinned copper conductor, **solid**
.010″ vinyl plastic insulation
27 pair cabled
(54 conductors)
Color coded:
1 through 27 (See listing Page 5)
.025″ tubed **chrome** vinyl plastic jacket
.510″ Nom. Diam

P.A. AND SOUND SYSTEM CABLES

Cables for every P.A. service in schools, public buildings, churches and wherever utmost dependability, long service life and freedom from maintenance is required.

8789 Net Ea.
100′ Spool $ 4.58
500′ Spool 41.25M
1000′ Spool 40.45M

18 A.W.G.

7x26 **stranded** tinned copper conductor
.020″ vinyl plastic insulation
2 conductors cabled:
Black and White
Tinned copper braid **shield**
.205″ Nom. Diam

8790 Net Ea.
100′ Spool $ 4.95
500′ Spool 45.00M
1000′ Spool 45.00M

18 A.W.G.

7x26 **stranded** tinned copper conductor
.020″ vinyl plastic insulation
2 conductors cabled:
Red and White
Tinned copper spiral wrapped **shield**
.025″ tubed **chrome** vinyl plastic jacket
.225″ Nom. Diam
For public address and intercommunicating systems in schools, hospitals and institutions.

8791 Net Ea.
100′ Spool $ 6.00
500′ Spool 57.00M
1000′ Spool 55.50M

18 A.W.G.

7x26 **stranded** tinned copper conductor
.020″ vinyl plastic insulation
3 conductors cabled:
Black, Red, White
Tinned copper spiral wrapped **shield**
.025″ tubed **chrome** vinyl plastic jacket
.230″ Nom. Diam

8209 Net Ea.
100′ Spool $ 5.48
500′ Spool 28.50
1000′ Spool 50.25M

18 A.W.G.

16x30 **stranded** tinned copper conductor
Low-loss rubber insulation
2 conductors cabled:
Red and White
Paper wrap
Tinned copper braid **shield**
White cotton braid treated with weather-resistant compound
.258″ Nom. Diam
For long runs in extension speaker installations.

8206 Net Ea.
100′ Spool $3.27
250′ Spool 7.43

18 A.W.G.

7x27 **stranded** tinned copper conductor
.040″ rubber insulation
Tinned copper braid **shield**
.155″ Nom. Diam
Shielded connector cable.

8482 Net Ea.
1000′ Spool $13.05M

19 A.W.G.

Bare copper conductor, **solid**
.015″ vinyl plastic insulation
2 conductors cabled:
Brown and Tan
.115″ Nom. Diam

8208 Net Ea.
100′ Spool $ 6.38
500′ Spool 29.70
1000′ Non-returnable Crate Reel 57.75

18 A.W.G.

7x26 **stranded** tinned copper conductor
Cotton wrap
Low-loss rubber insulation
2 conductors cabled:
Red and White
Paper wrap
Tinned copper braid **shield**
.020″ tubed **gray** vinyl plastic jacket
.260″ Nom. Diam
For extension speakers.

8204 Net Ea.
100′ Spool $3.75
500′ Spool 34.00M
1000′ Spool 34.00M

18 A.W.G.

7x26 **stranded** tinned copper conductor
Cotton wrap
Low-loss rubber insulation
2 conductors cabled:
Red and White
White cotton braid treated with weather-resistant compound
.220″ Nom. Diam

For extension speakers.

BELDEN

MICROPHONE CABLES

All Belden Microphone Cables are exceptionally limp with long flex life, low capacitance, high tensile strength and high resistance to abrasion.

8411 Net Ea.
25′ Coiled $ 1.01
50′ Coiled 1.70
100′ Spool 3.15
500′ Spool 13.50

25 A.W.G.

3x33 copper & 4x33 copper coated steel **stranded** tinned conductor
Cellulose yarn braid
Polyethylene plastic insulation
Tinned copper braid **shield**
Chrome vinyl plastic jacket
.144″ Nom. Diam
Nom. Capacitance — 34 mmf/ft

For high impedance lapel microphones and high fidelity interconnecting cables.

8401 Net Ea.
25′ Coiled $ 1.29
50′ Coiled 2.33
100′ Spool 4.35
500′ Spool 20.25

25 A.W.G.

3x33 copper & 4x33 copper coated steel **stranded** tinned conductor
Cellulose yarn braid
Polyethylene plastic insulation
Tinned copper braid **shield**
Chrome vinyl plastic jacket
.200″ Nom. Diam
Nom. Capacitance — 25 mmf/ft

For crystal, ribbon, and other high impedance microphones and high fidelity interconnecting cables.

8422 Net Ea.
25′ Coiled $ 1.73
50′ Coiled 3.15
100′ Spool 6.00
500′ Spool 28.50
22 A.W.G.

16x34 **stranded** tinned copper conductor
Polyethylene plastic insulation
2 conductors cabled with fillers:
Black and White
Rayon braid
Tinned copper braid **shield**
Chrome vinyl plastic jacket
.231″ Nom. Diam
Nom. Capacitance — 32 mmf/ft between one conductor and remaining conductor connected to shield

For all low impedance microphones.

8410 Net Ea.
25′ Coiled $ 2.09
50′ Coiled 3.89
100′ Spool 7.47
500′ Spool 35.45

25 A.W.G.

3x33 copper & 4x33 copper coated steel **stranded** tinned conductor
Cellulose yarn braid
Rubber insulation
Rayon braid
Tinned copper braid **shield**
Rayon wrap
Silver Gray rubber jacket
.245″ Nom. Diam
Nom. Capacitance — 33 mmf/ft

For crystal, ribbon, and other high impedance microphones.

8412 Net Ea.
25′ Coiled $ 2.31
50′ Coiled 4.22
100′ Spool 8.13
500′ Spool 38.87
20 A.W.G.

26x34 **stranded** tinned copper conductor
Cotton wrap
Rubber insulation
2 conductors cabled with fillers: Black and White
Rayon braid
Tinned copper braid **shield**
Cotton wrap
Silver Gray rubber jacket
.268″ Nom. Diam
Nom. Capacitance — 68 mmf/ft between one conductor and remaining conductor connected to shield

For all low impedance microphones.

8428 Net Ea.
25′ Coiled $ 2.87
50′ Coiled 5.34
100′ Spool 10.35
500′ Spool 49.50

18 A.W.G.

41x34 **stranded** tinned copper conductor
Cotton wrap
Rubber insulation
2 conductors cabled with fillers: Black and White
Rayon braid
Tinned copper braid **shield**
Cotton wrap
Silver Gray rubber jacket
.295″ Nom. Diam
Nom. Capacitance — 80 mmf/ft between one conductor and remaining conductor connected to shield

Heavy-duty studio cable.

8423 Net Ea.
50′ Coiled $ 4.71
100′ Spool 9.00
250′ Spool 22.38
500′ Spool 44.70
1000′ Spool 87.41

20 A.W.G.

26x34 **stranded** tinned copper conductor
Cotton wrap
.020″ rubber insulation
3 conductors cabled: Black, Red, White
Rayon braid
Tinned copper braid **shield**
Cotton wrap
Silver Gray rubber jacket
.277″ Nom. Diam
Nom. Capacitance — 85 mmf/ft between one conductor and remaining conductors connected to shield

For all low impedance microphones.

8424 Net Ea.
50′ Coiled $ 5.57
100′ Spool 10.85
250′ Spool 26.70
500′ Spool 51.85
1000′ Spool 104.30

20 A.W.G.

26x34 **stranded** tinned copper conductor
Cotton wrap
.020″ rubber insulation
4 conductors cabled: Black, Green, Red, White
Rayon braid
Tinned copper braid **shield**
Cotton wrap
Silver Gray rubber jacket
.295″ Nom. Diam
Nom. Capacitance — 95 mmf/ft between one conductor and remaining conductors connected to shield

For all low impedance microphones.

MULTIPLE CONDUCTOR CABLES

U. L. approved. Provide dependable service as power supply cords, interconnecting cables on electronic equipment, remote control circuits, special press-to-talk microphone circuits and a multitude of electronic applications.

8478 Net Ea.
100′ Spool $ 5.48
250′ Spool 12.86
1000′ Spool 51.98M

18 A.W.G.

41x34 **stranded** bare copper conductor
Cotton wrap
1/32″ rubber insulation
2 conductors cabled with fillers: Black and White
Cotton wrap
1/32″ **silver gray** rubber jacket
.299″ Nom. Diam
Underwriters' Type SJ

8472 Net Ea.
100′ Spool $ 6.75
250′ Spool 64.73M

16 A.W.G.

65x34 **stranded** bare copper conductor
Cotton wrap
1/32″ rubber insulation
2 conductors cabled with fillers: Black and White
Cotton wrap
1/32″ **silver gray** rubber jacket
.325″ Nom. Diam
Underwriters' Type SJ

8452 Net Ea.
100′ Spool $ 4.67
250′ Spool 10.88
500′ Spool 21.53
1000′ Spool 42.00

18 A.W.G.

41x34 **stranded** bare copper conductor
Cotton wrap
1/64″ rubber insulation
2 conductors cabled with fillers: Black and White
Cotton wrap
1/32″ **silver gray** rubber jacket
.245″ Nom. Diam
Underwriters' Type SV

8453 Net Ea.
100′ Spool $ 5.66
500′ Spool 52.20M

18 A.W.G.

41x34 **stranded** bare copper conductor
Cotton wrap
1/64″ rubber insulation
3 conductors cabled with fillers: Black, Green, White
Cotton wrap
1/32″ **silver gray** rubber jacket
.265″ Nom. Diam

8454 Net Ea.
100′ Spool $ 6.83
500′ Spool 63.75

18 A.W.G.

41x34 **stranded** bare copper conductor
Cotton wrap
1/64″ rubber insulation
4 conductors cabled: Black, Brown, Red, White
Cotton wrap
1/32″ **silver gray** rubber jacket
.265″ Nom. Diam

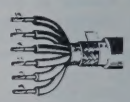
8455 Net Ea.
100′ Spool $ 7.60
250′ Spool 73.95M
22 A.W.G.

16x34 **stranded** bare copper conductor
Cotton wrap
1/64″ rubber insulation
18 A.W.G.
41x34 **stranded** bare copper conductor
Cotton wrap
1/64″ rubber insulation
5 conductors cabled with fillers:
3 — 22 A.W.G.: Brown, Green, White
2 — 18 A.W.G.: Black, Red
Cotton wrap
1/32″ **silver gray** rubber jacket
.280″ Nom. Diam

8425 Net Ea.
50′ Spool $ 6.75
100′ Spool 12.62
250′ Spool 31.22

20 A.W.G.

26x34 **stranded** tinned copper conductor
Cotton wrap
.020″ rubber insulation
5 conductors cabled: Black, Blue, Green, Red, White
Rayon braid
Tinned copper braid **shield**
Cotton wrap
.040″ **silver gray** rubber jacket
.323″ Nom. Diam
Interconnecting power cable for all electronic uses.



8426 Net Ea.
50′ Spool $ 8.09
100′ Spool 15.62
250′ Spool 38.37

20 A.W.G.

26x34 **stranded** tinned copper conductor
Cotton wrap
.020″ rubber insulation
8 conductors cabled: Black, Blue, Brown, Green, Red, White
Rayon braid
Tinned copper braid **shield**
Cotton wrap
.040″ **silver gray** rubber jacket
.349″ Nom. Diam
Interconnecting power cable for all electronic uses.

SHIELDED INTER-COM AND SOUND SYSTEM CABLES

Designed for long service, with excellent mechanical and electrical characteristics and uniform quality.

8734 Net Ea.
100′ Spool $ 3.90
500′ Spool 36.00M
1000′ Spool 34.50M

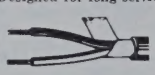
22 A.W.G.

7x30 **stranded** tinned copper conductor
.015″ vinyl plastic insulation
3 conductors cabled: Black, Red, White
White conductor, tinned copper braid **shield**
Black & Red conductors, **unshielded**
.020″ tubed **chrome** vinyl plastic jacket

For Station-to-station and Extension Wiring (Shielded)

8735 Net Ea.
100′ Spool $ 4.32
500′ Spool 41.25M
22 A.W.G. 39.75M

7x30 **stranded** tinned copper conductor
.015″ vinyl plastic insulation
3 conductors cabled: Black, Red, White
Tinned copper braid **shield**
.020″ tubed **gray** vinyl plastic jacket
.189″ Nom. Diam



8737 Net Ea.
100′ Spool $ 3.50
500′ Spool 33.00M
1000′ Spool 31.50M

22 A.W.G.

7x30 **stranded** tinned copper conductor
.015″ vinyl plastic insulation
2 conductors cabled: Black and Red
Tinned copper spiral wrapped **shield**
.020″ tubed **chrome** vinyl plastic jacket
.160″ Nom. Diam

8758 Net Ea.
100′ Spool $ 3.29
500′ Spool 28.50M
1000′ Spool 27.90M

20 A.W.G.

7x28 **stranded** tinned copper conductor
.015″ vinyl plastic insulation
2 conductors cabled: Black and Red
Tinned copper braid **shield**
.155″ Nom. Diam

8759 Net Ea.
100′ Spool $ 3.90
500′ Spool 36.00M
1000′ Spool 34.65M

20 A.W.G.

7x28 **stranded** tinned copper conductor
.015″ vinyl plastic insulation
2 conductors cabled: Black and Red
Tinned copper spiral wrapped **shield**
.020″ tubed **chrome** vinyl plastic jacket
.185″ Nom. Diam

8738 Net Ea.
100′ Spool $ 2.79
500′ Spool 28.50M
1000′ Spool 21.75M

22 A.W.G.

Tinned copper conductor, **solid**
.015″ vinyl plastic insulation
2 conductors cabled: Black and Red
Tinned copper braid **shield**
.130″ Nom. Diam

8739 Net Ea.
100′ Spool $ 3.03
500′ Spool 27.75M
1000′ Spool 26.25M

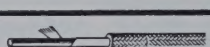
22 A.W.G.

Tinned copper conductor, **solid**
.015″ vinyl plastic insulation
2 conductors cabled: Black and Red
Tinned copper spiral wrapped **shield**
.020″ tubed **chrome** vinyl plastic jacket
.150″ Nom. Diam

8732 Net Ea.
100′ Spool $ 4.97
500′ Spool 46.50M
1000′ Spool 45.00M

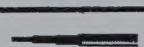
22 A.W.G.

7x30 **stranded** tinned copper conductor
.015″ polyethylene insulation
2 pair cabled: (4 conductors)
Color coded: Black and White
One pair tinned copper braid **shield**
One pair **unshielded**
.020″ tubed **chrome** vinyl plastic jacket
.168″x.276″ Nom. Diam



BELDEN

HOOK-UP AND LEAD WIRES



Hook-Up Wire-Tinned Copper Wire Cellulose Braid Lacquered for All Types of Electronic Equipment

AVAILABLE COLORS: (1) Black, (2) Blue, (3) Brown, (4) Green, (5) Orange, (6) Red, (7) White, (8) Yellow.

Catalog No.	AWG	Stranding	Vote Breakdown	O.D.	Colors	Net Price C. Ft.	Net Price M. Ft.
8941	20	Solid	1000	.072″	1, 2, 3, 4, 5, 6, 7, 8	$1.25	$10.00
8945	18	Solid	1000	.080″	1, 2, 4, 6, 7, 8	1.52	12.49
8943	20	10 x 30	1000	.076″	1, 2, 3, 4, 5, 6, 7, 8	1.35	10.81
8947	18	16 x 30	1000	.087″	1, 2, 4, 6, 7, 8	1.57	13.23
8942	16	26 x 30	1000	.099″	1, 4, 6	1.88	16.17
8938	14	41 x 30	1000	.115″	1, 6	2.35	21.32

High-voltage leads to cathode-ray tubes in television receivers, oscilloscopes and in power supplies and other applications where a high-voltage cable is required. High dielectric strength, corona resistance, and minimum surface leakage are very important features of these cables.

8885 Net Ea.
100′ Spooled & cartoned $ 2.88
500′ Spool 26.63M

20 A.W.G.

10x30 **stranded** tinned copper conductor
.015″ rubber insulation
Cellulose acetate yarn braid
Fungus and flame resistant lacquer coating
Tinned copper braid **shield**
.117″ Nom. Diam
Nom. *d-c Ins. Res. — 5000 megohms/ft
Nom. **breakdown voltage — 4000 volts
Used in circuits where shielded grid return is required and to shield a circuit conductor from stray fields.

8869 Net Ea.
100′ Spool $1.73

20 A.W.G.

7x28 **stranded** tinned copper conductor
.035″ flame retardant Rulan polyethylene plastic insulation
Color: **White**
.108″ Nom. Diam
Puncture voltage 32,000 volts
Temperature rating 100C°
Suggested Working Voltage **10,000 volts**

8868 Net Ea.
100′ Spool $3.15

20 A.W.G.

7x28 **stranded** tinned copper conductor
.065″ flame retardant Rulan polyethylene plastic insulation
Color: **White with Red Stripe**
.168″ Nom. Diam
Puncture voltage 54,000 volts
Temperature rating 100C°
Suggested Working Voltage **20,000 volts**

BELDEN
BROADCAST AUDIO CABLE

Designed to meet the most exacting requirements for trouble-free, dependable service. Manufactured to assure low-noise circuits, free from cross talk.

8437 — 22 A.W.G. CBS TYPE

	Net Ea.
100′ Spool	$ 5.18
500′ Spool	47.25M
1000′ Spool	46.50M

Tinned copper conductor, **solid**
Enameled
Heavy cellulose acetate yarn wrap
Cotton braid waxed
2 conductors cabled:
Black and Red
Tinned copper braid **shield**
22 A.W.G. tinned solid copper wire parallel to twisted pair under shield
.025″ tubed **black** vinyl plastic jacket
.222 Nom. Diam

8435 — 20 A.W.G. NBC TYPE

	Net Ea.
100′ Spool	$ 5.93
500′ Spool	54.75M
1000′ Spool	53.63M

Tinned copper conductor, **solid**
Enameled
Cotton wrap
Cotton braid waxed
2 conductors cabled:
Blue and Red
Tinned copper braid **shield**
Cotton wrap
.025″ tubed **black** plastic jacket
.208″ Nom. Diam

8436 — 22 A.W.G. ABC TYPE

	Net Ea.
100′ Spool	$ 4.80
500′ Spool	42.75M
1000′ Spool	42.75M

Tinned copper conductor, **solid**
Heavy cellulose acetate yarn wrap
Cellulose acetate yarn braid
Lacquer coating
2 conductors cabled:
Black and Red
Tinned copper spiral wrapped **shield**
22 A.W.G. tinned solid copper wire parallel to twisted pair under shield
.020″ tubed **black** Plastic jacket
.180″ Nom. Diam

8438 — 20 A.W.G. NBC TYPE

	Net Ea.
100′ Spool	$ 4.16
500′ Spool	36.98M
1000′ Spool	36.45M

Tinned copper conductor, **solid**
Enameled
Cotton wrap
Cotton braid waxed
2 conductors cabled:
Blue and Red
Tinned copper braid **shield**
.140″ Nom. Diam

8439 — 20 A.W.G. ABC TYPE

	Net Ea.
100′ Spool	$ 4.85
500′ Spool	42.15M
1000′ Spool	41.63M

Tinned copper conductor, **solid**
Heavy cellulose acetate yarn wrap
Cellulose acetate yarn braid
Lacquer coating
2 conductors cabled:
Black and Red
Tinned copper braid **shield**
.150″ Nom. Diam

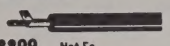
8440 — 22 A.W.G.

	Net Ea.
100′ Spool	$ 4.50
500′ Spool	40.50M
1000′ Spool	39.75M

Tinned copper conductor, **solid**
Enameled
Cotton wrap
Cotton braid waxed
2 conductors cabled:
Black and Red
Tinned copper spiral wrapped **shield**
22 A.W.G. tinned solid copper wire parallel to twisted pair under shield
.020″ tubed **chrome** vinyl plastic jacket
.185″ Nom. Diam

BELDEN
TEST PROD WIRE

High-voltage lead wire for use with portable testing equipment, instruments, and other radio units where excellent dielectric properties of the insulation and extreme flexibility and limpness of the cable are essential considerations.



8899 — 18 A.W.G.

	Net Ea.
100′ Spool	$ 2.18
500′ Spool	8.63
1000′ Spool	17.10

65x36 **stranded** tinned copper conductor
Cotton wrap
.043″ rubber insulation
Colors: **Black, Red**
.140″ Nom. Diam
Puncture voltage 20,000 volts
Suggested Working Voltage **5,000 volts**

8898 — 18 A.W.G.

	Net Ea.
100′ Spool	$ 3.15
500′ Spool	13.80

65x36 **stranded** tinned copper conductor
Cotton wrap
.088″ rubber insulation
Colors: **Black, Red**
.230″ Nom. Diam
Puncture voltage 29,000 volts
Suggested Working Voltage **10,000 volts**

Belden
BELDEN MAGNET WIRE

Beldenamel — ½ Lb.

Size	Net Ea.	Size	Net Ea.
14	$ .60	28	$ .77
16	.59	30	.86
18	.59	32	.87
20	.60	34	.93
22	.63	36	1.14
24	.68	38¼	.83
26	.72	40¼	1.19

Cotenamel — ½ Lb.

Size	Net Ea.	Size	Net Ea.
14	$ .69	26	$1.08
16	.72	28	1.29
18	.78	30	1.50
20	.87	32	1.80
22	.89	34¼	1.22
24	.96	36¼	1.53

H.N.C. Nylclad 1 Lb.

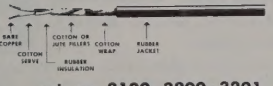
Nyclad magnet wire combines the most desirable features of Formvar with the well-known toughness and solvent resistance of Nylon enamel.

Size	Net Ea.	Size	Net Ea.
14	$1.07	28	$1.58
16	1.08	30	1.77
18	1.11	32	1.88
20	1.16	34	2.10
22	1.22	36	2.40
24	1.29	38	3.00
26	1.41	40	4.50

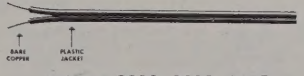
CORNISH
POSJ, POT, SV AND SJ
U.L. Approved Lamp and Appliance Cords

CORNISH

cat. no. 3000, 3001, 3003



cat. no. 3100, 3200, 3201
3202 3300 3301



cat. no. 3010, 3011, 3012

Catalog Number	AWG Size	UL Type	Number of Strands	INSULATION THICKNESS Cond. Inch	INSULATION THICKNESS Jacket Inch	Nominal Outside Diameter Inch	Current Carrying Capacity Amperes	Standard Put-Up	Net Per 250-Ft. Spool	Net Per 1,000-Ft. Spool
3000	18/2	SP-1	41/34	2/64	—	.120x225	7	250′ Spool	$5.50	$20.65
3001	18/2	SP-2	41/34	3/64	—	.150x285	7	250′ Spool	8.00	29.80
3003	16/2	SP-2	65/34	3/64	—	.170x320	10	250′ Spool	11.25	42.20
3010	18/2	SPT-1	41/34	2/64	—	.120x225	7	250′ Spool	4.80	18.15
3011	18/2	SPT-2	41/34	3/64	—	.150x285	7	250′ Spool	7.50	28.50
3012	16/2	SPT-2	65/34	3/64	—	.170x320	10	250′ Spool	11.25	42.20
3100	18/2	SV	41/34	1/64	2/64	.250	7	250′ Spool	10.23	39.20
3200	18/2	SJ	41/34	2/64	2/64	.305	7	250′ Spool	12.23	46.40
3201	18/3	SJ	41/34	2/64	2/64	.345	7	250′ Spool	17.65	68.40
3202	18/4	SJ	41/34	2/64	2/64	.360	5.6	250′ Spool	26.25	99.40
3300	18/2	SJ	16/30	2/64	2/64	.305	7	250′ Spool	8.03	42.25
3301	18/3	SJ	16/30	2/64	2/64	.345	7	250′ Spool	16.25	64.05

BELDEN RG CO-AXIAL CABLE

Designed to meet the most exacting commercial and military specifications. Strict production control and highest quality materials assure the utmost in performance and dependability.

RG Type No.	Cat. No.	Nom. Impedance In Ohms	Nom. Cap. Per Ft. In mmf.	O.D.	Net Ea. Per 100-Ft.	Net Per 500-Ft.	Net Per 1,000-Ft.
RG-5A/U	8264	50	29	.328	$21.00	$207.00M	$207.00M
RG-8/U	8237	52	29.5	.405	12.15	118.50M	115.50M
RG-9/U	8242	51	30	.420	26.25	259.50M	258.00M
RG-11/U	8238	75	20.5	.405	11.40	111.00M	109.50M
RG-22A/U	8260	95	16	.420	22.50	220.50M	217.50M
RG-29/U	8244	53.5	28.5	.172	5.25	51.00M	49.50M
RG-54A/U	8239	58	26.5	.250	7.35	69.00M	67.50M
RG-55/U	8245	53.5	28.5	.206	9.23	90.00M	88.50M
RG-58A/U	8259	50	29	.195	5.40	52.50M	49.50M
RG-58/U	8240	53.5	28.5	.195	5.25	51.00M	49.50M
RG-59U	8241	73	21	.242	6.00	57.00M	55.50M
RG-62/U	8254	93	13.5	.242	7.28	69.00M	65.25M
RG-71/U	8257	93	13.5	.250	11.25	111.00M	109.50M

AMPHENOL R. G. COAXIAL CABLE
Produced to Government Specifications, Manufactured to Highest Quality Standards

Military Number RG- U	AMPHENOL Number	Impedance in Ohms	Jacket Diameter	Vinyl Jacket	Cap. Mmfd Ft.	Max. Oper Volts-Rms	Net Per 100-Ft.	Net Per 500-Ft.	Net Per 1,000-Ft.
5	21-001	52.5	.332	Black	28.5	3000	$15.34	$75.00	$145.01
5A	21-271	50	.328	Grey	29	3000	25.00	123.34	243.35
6	21-002	76	.332	Grey	20	2700	21.00	101.68	196.68
7	21-003	97	.370	Black	12.5	1000	15.84	76.68	148.34
8	21-004	52	.405	Black	29.5	4000	14.67	71.68	139.18
9	21-005	51	.420	Grey	30	4000	31.34	155.02	308.36
9A	21-231	51	.420	Grey	30	4000	40.34	198.35	393.37
10	21-006	52	.405	Grey	29.5	4000	34.36	132.51	260.00
11	21-007	75	.405	Black	20.5	4000	13.17	65.84	128.35
12	21-008	75	.405	Grey	20.5	4000	26.00	128.35	253.36
13	21-009	74	.420	Black	20.5	4000	23.00	111.68	216.68
17	21-013	52	.870	Grey	29.5	11000	66.67	379.15	653.39
18	21-014	52	.870	Grey	29.5	11000	87.51	433.37	850.07
19	21-015	52	1.120	Grey	29.5	14000	103.68	514.21	1,002.00
20	21-016	52	1.120	Grey	29.5	14000	139.18	687.56	1,356.77
21	21-017	53	.332	Grey	29	2700	26.67	130.85	256.69
22A	21-148	95	.420	Grey	16	1000	28.34	139.18	275.02
29	21-018	53.5	.184	Poly	28.5	1900	6.87	30.42	58.34
35	21-020	71	.870	Grey	21.5	10000	89.51	443.37	875.07
42	21-021	78	.342	Grey	20	2700	28.34	137.51	270.02
54A	21-022	58	.250	Poly	26.5	3000	8.83	42.50	83.34
55	21-023	53.5	.206	Poly	28.5	1900	11.17	55.00	108.34
58	21-024	53.5	.195	Black	28.5	1900	6.00	29.17	56.67
58A	21-199	50	.195	Black	28.5	1900	6.17	29.59	56.67
59	21-025	73	.242	Black	21	2300	7.00	37.92	64.17

BIRNBACH

Type SRHV—Hook-Up Wire—2500 Volt (Jan-C-76)

Similar in Construction to Type SRIR but has a larger wall of primary thermoplastic insulation to take 2500 V RMS Voltage Rating.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White.

Catalog No.	AWG	Stranding	Ins.	Volt Breakdown	O.D.	Colors	Net Price 100 ft.	Net Price 1000 ft.
7322	22	7/30	1/32″	12,000	.105″	All	$1.56	$14.25
7320	20	10/30	1/32″	12,000	.113″	All	1.95	18.00
7318	18	16/30	1/32″	12,000	.122″	All	2.52	22.80
7316	16	26/30	1/32″	12,000	.134″	All	3.45	31.50
7314	14	41/30	1/32″	12,000	.152″	All	4.05	37.50
7312	12	65/30	1/32″	12,000	.172″	All	6.90	64.50

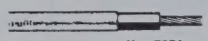
BIRNBACH

Aircraft Wire
MIL-W-5086 AND MIL-C-7078

Used Where a Single Conductor, 600 Volt Insulated Wire is Required. This Aircraft Electrical Wire is Resistant to the Effect of Salt Water, Oils, Aircraft Engine Fuels, Hydraulic Fluids, Alcohol, Glycol, Acids, Alkalies, and Fungus. High Heat, Cold and Flame Resistant.

Description:

One Conductor Stranded Tinned Copper, Polyvinyl Chloride Insulation, Extruded Nylon Jacket Overall. Available in White.



No. 7351

MIL-W-5086—UNSHIELDED—(Supersedes AN-J-C-48A)

Cat. No.	Spool	Size AWG	Type Designation	Strand	Nom. Wall	Nom. O.D.	Net Per 1,000 Ft.
7351	1000′	22	AN-22	19/34	.015″	.085″	$20.58
7353	1000′	20	AN-20	19/32	.015″	.095″	22.41
7355	1000′	18	AN-18	19/30	.015″	.104″	26.15
7357	1000′	16	AN-16	19/29	.016″	.112″	35.00
7359	1000′	14	AN-14	19/27	.018″	.130″	43.37
7361	1000′	12	AN-12	19/25	.018″	.150″	56.46

Description:

One Conductor—Same Construction as Above, Color White with Tinned Copper Braided Shield Overall.

No. 7371

MIL-C-7078—SHIELDED—(Supersedes AN-C-168)

Cat. No.	Spool	Size AWG	Type Designation	Strand	Nom. Wall	Nom. O.D.	Net Per 1,000 Ft.
7371	1000′	22	AN-22	19/34	.015″	.110″	$41.16
7372	1000′	20	AN-20	19/32	.015″	.120″	44.99
7373	1000′	18	AN-18	19/30	.015″	129″	50.64
7374	1000′	16	AN-16	19/29	.016″	139″	58.07

BIRNBACH

Biraco Plastic Tubing
UL APPROVED FOR 105°C OPERATION
MEETS MIL-I-631A SPECS.

A quality plastic vinyl tubing designed for electronic and electrical insulation work. Has high dielectric strength, extreme flexibility, non-flammability, abrasion resistance, impervious to oil, water, alkalies, alcohol, solvents, etc. High heat stability and resistance to aging. Meets all ASTM specifications, Mil Spec. (Type F, Form U, Grade C, Class 2, Category 1).

Put up on convenient 100′ Spools or Coils

Cat. No.	B&S Gauge Size No.	Approx. I.D.	Length Spool	Net Ea.
308BC	24	.022″	100′	$1.63
311BC	22	.027″	100′	1.63
313BC	20	.034″	100′	1.63
314BC	18	.042″	100′	1.63
315BC	16	.053″	100′	1.63
316BC	14	.066″	100′	1.76
317BC	12	.085″	100′	1.76
325BC	10	.106″	100′	2.59
318BC	8	.135″	100′	2.76
326BC	6	.166″	100′	2.94
319BC	4	.208″	100′	3.97
320BC	2	.263″	100′	3.97
321BC	5/16	.3125″	100′	5.00
322BC	3/8	.375″	100′	8.23
323BC	1/2	.500″	100′	13.22
324BC	5/8	.625″	100′	16.16
*360BC	7/8	.875″	100′	19.10
*361BC	1″	1.000″	100′	20.57
*362BC	1¼″	1.250″	50′	13.22
*363BC	1½″	1.500″	50′	17.63

Birnbach Biraco Tubing put up in coils 36 inches long.

Cat. No.	B&S Gauge Size No.	Approx. I.D.	Net Ea.
313	20	034″	$ .10
314	18	042″	.10
315	16	053″	.11
316	14	066″	.11
317	12	085″	.11
325	10	106″	.21
318	8	135″	.24
326	6	166″	.24
319	4	208″	.27
320	2	263″	.30
321	5/16	3125″	.36
322	3/8	375″	.39
323	1/2	500″	.60
324	5/8	625″	.66

*Cat. Nos. 360BC, 361BC, 362BC, 363BC Available in Black and Clear from Stock.

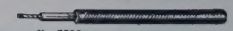
COLORS AVAILABLE FROM STOCK:

BLACK	WHITE	BROWN
RED	YELLOW	ORANGE
GREEN	BLUE	CLEAR

Due to the fluctuating prices of the copper market, the wire prices in this Catalog No. 56 of Radio & Electronic Supplies are subject to change without notice.

BIRNBACH

No. 7534



No. 7535

Miniaturization Hook-Up Wire

HIGH TEMPERATURE 105° C: Used in miniaturized equipment for hook-up and lead wires for instruments where small size is required with high operating temperatures.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White.
DESCRIPTION: One conductor tinned copper stranded, Hi-Heat thermoplastic insulation overall.

UNSHIELDED

Catalog No.	AWG	Stranding	Ins.	O.D.	Colors	1,000-Ft.
7534	34	4/40	1/10″	.030″	All	$7.65
7532	32	7/40	1/10″	.030″	All	7.80
7530	30	7/38	1/10″	.030″	All	7.95
7529	29	5/36	1/10″	.030″	All	8.55
7528	28	7/36	1/10″	.035″	All	9.00
7527	27	7/35	1/10″	.040″	All	9.45
7526	26	10/36	1/10″	.044″	All	9.90

SHIELDED

Catalog No.	AWG	Stranding	Ins.	O.D.	Colors	1,000-Ft.
7535	28	7/36	1/8″	.060″	All	$39.00
7536	24	16/36	1/7″	075″	All	36.00

DESCRIPTION: One conductor tinned copper stranded, hi-heat thermoplastic insulation, extra flexible tinned copper braided shield overall available in color white under shield.

BIRNBACH

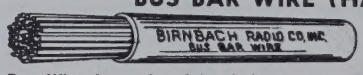
Solid Tinned Soft Drawn Wire
Packaged in convenient ¼, ½ and 1-lb. spools.

SOLID TINNED (Soft Drawn)

¼ lb. SPOOL Size B&S	Ft.	Net ¼ Lb.	½ lb. SPOOL Size B&S	Ft.	Net ½ Lb.	1 lb. SPOOL Size B&S	Ft.	Net 1 Lb.
10	8	$ .39	10	16	$ .72	10	32	$1.23
12	12	.40	12	25	.73	12	50	1.23
14	20	.41	14	40	.73	14	80	1.26
16	32	.42	16	63	.75	16	126	1.29
18	50	.45	18	100	.76	18	201	1.34
20	80	.49	20	160	.79	20	320	1.38
22	127	.50	22	254	.82	22	508	1.47
24	201	.51	24	403	.88	24	806	1.55
26	320	.55	26	640	.95	26	1280	1.71
28	507	.58	28	1015	1.00	28	2030	1.80
30	805	.63	30	1610	1.14	30	3220	2.06
32	1282	.70	32	2564	1.22	32	5128	2.24
34	2037	.77	34	4075	1.40	34	8150	2.81
36	3221	.90	36	6443	1.64	36	12887	3.07
38	5132	1.03	38	10246	1.91	38	20492	3.58
40	8143	1.56	40	16286	2.85	40	32573	5.41

BIRNBACH

BUS BAR WIRE (HARD DRAWN)



For hooking up all types of transmitters, especially ultra short wave equipment. All Bus Wire is made of hard drawn copper, tinned, straightened, and cut 2 ft. lengths.

Cat. No.	(100 TO STD. PACKAGE)	Net Ea.
2010	No. 10 Round Tinned	$8.17
2012	No. 12 Square Tinned	6.79
2013	No. 12 Round Tinned	5.82
2014	No. 14 Square Tinned	5.29
2015	No. 14 Round Tinned	4.32
2016	No. 16 Round Tinned	3.53

BIRNBACH VARNISHED TUBING

Radio Grade (A.S.T.M., N.E.M.A. Grade A-B-1)
MEETS MIL-3190 SPECS

Quality radio and electronic varnished tubing. Constructed of high quality fiberglass or cotton braid with heavy coatings of varnish applied inside and out. Inside coated for easy insertion of wires. Has maximum dielectric per mil of wall thickness and excellent heat resistance. Remains flexible aftr aging. Average dielectric strength 5,000 volts. Impervious to oil, acid, water. High tensile strength. Good flexibility, non-peeling and non-cracking qualities. Maximum permissible "hottest spot" temperature 130°C.

Put up on convenient 100′ Spools or Coils.

Cat. No	B&S Gauge Size No.	Approx. I.D.	Length Spool	Net Ea.
291VC	20	.034	100′	$3.52
293VC	18	.042	100′	3.76
294VC	16	.053	100′	3.96
295VC	14	.066	100′	4.12
300VC	12	.085	100′	4.50
307VC	10	.106	100′	5.29
301VC	8	.135	100′	5.88
302VC	6	.166	100′	6.46
305VC	4	.208	100′	8.23
306VC	2	.263	100′	9.76
*VINYL COATED FIBERGLASS				
*303VC	5/16	.3125	100′	14.70
*304VC	3/8	.375	100′	17.64
*299VC	1/2	.500	100′	24.99
*296VC	5/8	.625	100′	29.40

Special Spools Varnished Tubing

Cat. No.	B&S Gauge Size No.	Approx. I.D.	Length Spool	Net Ea.
291V	20	.034	25′	$1.00
293V	18	.042	25′	1.03
294V	16	.053	25′	1.06
295V	14	.066	25′	1.06
300V	12	.085	25′	1.15
307V	10	.106	20′	1.06
301V	8	.135	15′	1.03
302V	6	.166	10′	.73
305V	4	.208	10′	.88
306V	2	.263	10′	1.00

COLORS:

BLACK	WHITE	BROWN
RED	YELLOW	ORANGE
GREEN	BLUE	

DON'T YOU GET CAUGHT . . . WITH INADEQUATE IDENTIFICATION !

USE

Westline Tel-A-PIPES

A pressure-sensitive, self-adhering positive identification for Cable, Conduit, and Pipe

EASY . . . ECONOMICAL . . . LONG LASTING (INDOORS OR OUT)

WESTLINE TEL-A-PIPES are available printed in black on the 5 background colors* approved by the American Standards Association. Over 200 stock descriptions are available, from Acetic Acid to Well Water, from low voltages to high voltages, plus directional arrows.

*Red—fire protection piping; yellow—dangerous materials; green—safe materials; blue—protective materials; purple—extra valuable.

PRICE LIST	STOCK	SPECIAL
20 TO 49 CARDS	26¢	PER CARD
50 TO 99 CARDS	21¢	25¢ PER CARD
100 TO 249 CARDS	19¢	22¢ PER CARD
250 TO 499 CARDS	16¢	19¢ PER CARD
500 TO 999 CARDS	15¢	18¢ PER CARD
1000 TO 2499 CARDS	14¢	16¢ PER CARD
2500 CARDS OR OVER	QUOTATION	QUOTATION

MINIMUM ORDER OF STOCK CARDS IS 20 WHICH CAN CONSIST OF ANY ASSORTMENT OF STOCK CARDS.

TYPE 1

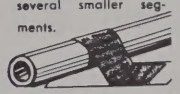
A 2¼" X 9" marker for large diameter piping. May be wrapped around the pipe, or attached along the pipe.

TYPE 2

A 2¼" X 9" marker for wrapping around large diameter piping. Printed description is repeated 3 times.

TYPE 3

A 2¼" X 9" marker for small diameter piping. Printed description repeated 15 times. Marker may easily be cut into several smaller segments.



TYPE 4

Each Tel-A-Pipe card contains 9 separate 2¼" X 1" individual markers for small diameter piping.

MINIMUM ORDER OF SPECIAL CARDS IS 50 CARDS OF ANY ONE SPECIAL ITEM. HOWEVER, SPECIALS MAY BE GROUPED FOR A QUANTITY PRICE.

DO NOT COMBINE STOCK AND SPECIAL CARDS IN FIGURING ANY PRICE.

DESCRIPTION	Background Color
A. C.	Orange
Acetic Acid	Yellow
Acetone	Yellow
Acetylene Gas	Yellow
Acid	Yellow
A.D.T.	Orange
Air	Green
Alcohol	Yellow
Alum	Green
Ammonia	Yellow
Ammonium Nitrate	Yellow
Amyl Acetate	Yellow
Antidote Gas	Blue
Artesian Water	Green
Benzol	Yellow
Bisulphite Liquor	Yellow
Blau Gas	Yellow
Bleach Liquor	Yellow
Blow-Off Water	Yellow
Boiler Feed Water	Yellow
Brine	Green
Butane	Yellow
Butyl Alcohol	Yellow
Call System	Orange
Carbon Bisulphide	Yellow
Carbon Dioxide	Yellow
Carbon Monoxide	Yellow
Carbon Tet.	Green
Carbon Tet.	Red
Caustic Soda	Yellow
Chlorine	Yellow
Chlorine Gas	Yellow
Chloroform	Yellow
Circulating Water	Green
City Gas	Yellow
City Water	Green
C—O—Two	Red
Coal Gas	Yellow
Cold Water	Green
Compressed Air	Green
Condensate	Yellow
Cooling Water	Green
Cottonseed Oil	Yellow
Cutting Oil	Green
D. C.	Orange

DESCRIPTION	Background Color
Diesel Oil	Yellow
Distilled Water	Green
Drain Oil	Yellow
Drain Water	Green
Drinking Water	Green
Dye	Yellow
Ethane Dye	Yellow
Exhaust Air	Green
Exhaust Gas	Yellow
Filtered Water	Blue
Fire Protection Water	Red
Flue Gas	Yellow
Foamite	Red
Freon	Green
Fresh Water	Green
Fuel Oil	Yellow
Gas	Yellow
Gasoline	Yellow
Glycerine	Green
Heating Return	Yellow
Heating Steam	Yellow
High Pressure Steam	Yellow
Hi Press Condensate	Yellow
Hi Press Lub. Oil	Yellow
Hi Voltage	Orange
Hot Water	Yellow
Hydrochloric Acid	Yellow
Hydrogen	Yellow
Hydrogen Sulphide	Yellow
Industrial Water	Green
Inert Gas	Red
Inert Gas	Green
Intermediate	Yellow
Kerosene	Yellow
Lacquer	Yellow
Lactic Acid	Purple
Lighting	Orange
Linseed Oil	Yellow
Lo Press Condensate	Yellow
Lo Press Lub. Oil	Yellow
Lo Pressure Steam	Yellow
Lub. Oil—SAE 30	Yellow
Lub. Oil—SAE 40	Yellow
Medium Pressure Steam	Yellow
Mercury	Yellow

DESCRIPTION	Background Color
Methyl Chloride	Yellow
Mixed Acid	Yellow
Mixed Gas	Yellow
Muriatic Acid	Yellow
Naphtha	Yellow
Natural Gas	Yellow
Nitric Acid	Yellow
Nitrogen	Green
Nitrogen Oxide Fumes	Yellow
Oil	Yellow
Oil Emulsion	Green
Oil Lubricating	Purple
Oil Soluble	Purple
Oxygen	Yellow
Paint	Yellow
Pinch Gas	Yellow
Pneu Tube	Green
Pond Water	Green
Power	Orange
Process Gas	Yellow
Producer Gas	Yellow
Propane Gas	Yellow
Public Address	Orange
Raw Water	Green
Refrigerated Water	Green
River Water	Green
Salt Water	Green
Sanitary Sewer	Green
Size	Green
Soda Ash	Green
Solvent	Yellow
Soybean Oil	Yellow
Spray Air	Green
Sprinkler, Fire	Red
Sprinkler Water	Red
Steam	Yellow
Storm Sewer	Green
Sugar Juice	Green
Sulphur Chloride	Yellow
Sulphur Dioxide	Yellow
Sulphuric Acid	Yellow
Tar	Yellow
Telephone	Orange
Test Air	Green
Toluene	Green

DESCRIPTION	Background Color
Toluol	Yellow
Tower Water	Green
Treated Water	Green
Turpentine	Yellow
Unsafe Water	Yellow
Vacuum	Yellow
Vacuum	Green
Vapor	Yellow
Varnish	Yellow
Vegetable Oil	Yellow
Waste Water	Green
Water	Green
Water Gas	Yellow
Well Water	Green
110 V	Orange
115 V	Orange
118 V	Orange
120 V	Orange
125 V	Orange
208 V	Orange
220 V	Orange
230 V	Orange
236 V	Orange
240 V	Orange
250 V	Orange
380 V	Orange
440 V	Orange
460 V	Orange
480 V	Orange
550 V	Orange
575 V	Orange
600 V	Orange
880 V	Orange
2200 V	Orange
2400 V	Orange
4400 V	Orange
4800 V	Orange
DIRECTIONAL ARROWS (Indicating the direction of flow may be more important, at times, than indicating the contents of the pipe.)	Yellow, Red, Green, Purple, Blue
SOLID COLORS	Red, Green, Yellow, Purple, Blue, Orange

Simple to apply . . . Fast . . . permanent

1. Break backing card at perforation.

2. Loosen an inch or more of tape from large section of backing card.

3. Pull off small backing card tab.

4. Apply end of tape to pipe and pull end of backing card from which tape has been removed around pipe . . . the tape is automatically and firmly applied to the pipe.

SAFETY SIGNS

650 6th AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

Sun Radio & ELECTRONICS CO. INC.

WESTLINE SIGNS for INDUSTRIAL SAFETY

● EASY TO USE ● ATTACH TO ANY CLEAN SURFACE ● SELF-ADHERING ● ECONOMICAL ● LONG LASTING

Type A	Type B	Type C	Type D	Type E	Type F	Type G	Type H
Red on white to indicate DANGER or FIRE PROTECTION.	Black on yellow to indicate CAUTION.	Black on white to INFORM or DIRECT.	Red on white. Wording plus separate, arrow to be mounted at either side.	Wording black on white plus Green First Aid Emblem.	Consists of two separate signs, each 2¼" x 4½" DANGER plus wording, black on white.	Consists of two separate signs each 2¼" x 4½", CAUTION plus words black on yellow.	Consists of two separate signs each 2¼" x 4½", red on white.

ACID | HANDS OFF | OFFICE | EXIT | ➡ | FIRST AID | DANGER ACID | DANGER ACID | CAUTION Keep Closed | CAUTION Keep Closed | NO RIDERS | NO RIDERS

Stock No.	SIGN	Available Type
West-1	A FIRE TODAY NO JOB TOMORROW	A
West-2	ACID	A-F
West-3	AMBULANCE ENTRANCE	E
West-4	AUTOMATIC SPRINKLER DO NOT TOUCH	A
West-5	BE CAREFUL IN OPERATING THE MACHINES	B
West-6	CABLE BURIED HERE	A
West-7	CAUSTIC	A-F
West-8	COMPLETE YOUR JOB BY REMOVING ALL HAND TOOLS AND LOOSE MATERIALS. SAVE ACCIDENTS	B
West-9	CORROSIVE LIQUIDS. USE PERSONAL PROTECTIVE EQUIPMENT	A
West-10	CRANE WORKING OVERHEAD	A
West-11	DEPOSIT MATCHES AND ALL SMOKING MATERIAL HERE	B
West-12	DEPOSIT WASTE HERE	C
West-13	DISPENSARY	E
West-14	DO NOT CLEAN OR OIL MACHINERY WHILE IN MOTION	C
West-15	DO NOT CLOSE VALVE	A
West-16	DO NOT GET ON OR OFF ELEVATOR WHILE IT IS MOVING	A
West-17	DO NOT LOOK AT FLAME AVOID INJURING EYES	A
West-18	DO NOT MOVE THIS LADDER	A
West-19	DO NOT OPEN VALVE	A
West-20	DO NOT OPERATE WHEN WEARING GLOVES OR LOOSE CLOTHING	B
West-21	DO NOT OPERATE WITHOUT GUARDS	B-G
West-22	DO NOT PUT ON OR TAKE OFF BELT WHILE MACHINERY IS IN MOTION	C
West-23	DO NOT START THIS MACHINE	A
West-24	DO NOT TALK TO OPERATOR	C
West-25	DO NOT THROW RUBBISH INTO THE TOILET BOWL	B
West-26	DO NOT THROW RUBBISH INTO THE URINALS	B
West-27	DO NOT TOUCH	A
West-28	DO NOT TOUCH SWITCHES	A
West-29	DO NOT USE NEAR ELECTRICAL EQUIPMENT	G
West-30	DO NOT USE ON ELECTRICAL FIRES	A-H
West-31	DO NOT WATCH THE ARC	A
West-32	DO NOT WEAR GLOVES WHEN GRINDING	A
West-33	DO NOT WEAR GLOVES WHILE OPERATING THIS MACHINE	F-G
West-34	DON'T START OUT OF ORDER	B
West-35	DRIVE SAFELY THE LIFE YOU SAVE MAY BE YOUR OWN	H
West-36	ELECTRIC CURRENT KEEP OFF	A
West-37	ELECTRIC TRUCKS GO SLOW	B
West-38	ELEVATOR	C-D
West-39	ELEVATOR OUT OF ORDER	C
West-40	ELEVATOR SHAFT	A
West-41	EMERGENCY EQUIPMENT	E
West-42	EMPLOYEES ONLY	C
West-43	EMPLOYMENT OFFICE	D
West-44	ESCAPE SHAFT	D
West-45	EXIT	A-C-D
West-46	EXPLOSIVES	A-F
West-47	EXTINGUISHER	C
West-48	EYE WASH FOUNTAIN	C
West-49	FIRE ALARM HANDS OFF	A-B
West-50	FIRE BOX	C-D
West-51	FIRE DOOR DO NOT BLOCK	B-G
West-52	FIRE ESCAPE	A-C
West-53	FIRE EXIT	D
West-54	FIRE EXTINGUISHER	A-D
West-55	FIRE EXTINGUISHER HERE	A
West-56	FIRE HOSE	A
West-57	FIRST AID	C-D-E
West-58	FIRST AID EQUIPMENT	E
West-59	FIRST AID KIT	E
West-60	FIRST AID ROOM	E
West-61	FLAMMABLE KEEP FLAMES AND HEAT AWAY	A
West-62	FOR BURNING LIQUIDS, GASOLINE, OIL, PAINT, AND ELECTRICAL EQUIPMENT	A
West-63	FOR EMERGENCY USE ONLY	A-E-F
West-64	FOR FIRE USE ONLY	A
West-65	FOR FIRE USE ONLY — HANDS OFF	A
West-66	FOR USE ON ALL FIRES	A-H
West-67	FOR USE ON ELECTRICAL FIRES	A-H
West-68	FOR USE ON OIL FIRES ONLY	A-H
West-69	FOR WOOD, PAPER, RUBBISH AND BURNING LIQUIDS (CLASS A & B) NOT ELECTRICAL PARTS	A
West-70	FOR WOOD, PAPER, TEXTILES AND RUBBISH FIRES (CLASS A), NOT ELECTRICAL EQUIPMENT	A-H
West-71	GASOLINE	A-F
West-72	GO SLOWLY	A
West-73	GROUND EQUIPMENT BEFORE USING	B-G
West-74	HANDS OFF	A-B-F
West-75	HELP KEEP THIS PLANT SAFE AND CLEAN	C
West-76	HIGH VOLTAGE	A-F
West-77	HIGHLY FLAMMABLE	A-H
West-78	HOSPITAL	C-E
West-79	HOSPITAL STRETCHER HERE	E
West-80	KEEP AISLE CLEAR	B
West-81	KEEP ALL AISLES CLEAR	C
West-82	KEEP ALL TRASH PICKED UP AND PLACED IN THIS RECEPTACLE	B
West-83	KEEP AWAY	A
West-84	KEEP CLOSED	G
West-85	KEEP FLOORS CLEAN	C
West-86	KEEP GATES CLOSED	A-C
West-87	KEEP OFF	A
West-88	KEEP OUT	A-B
West-89	KEEP THE GUARD IN PLACE	F
West-90	LIVE WIRE	A
West-91	LOCKER ROOM	C-D
West-92	LOOK OUT FOR CARS	A
West-93	LOOK OUT FOR ELEVATOR	A
West-94	LOOK OUT FOR TRUCKS	A
West-95	MAN BELOW	A
West-96	MAN IN BOILER	A
West-97	MANWAY	C
West-98	MANWAY OUT	D
West-99	MEN	C
West-100	MEN WORKING DON'T START	A-F
West-101	MOVING MACHINERY	A
West-102	MOVING PARTS KEEP CLEAR	A
West-103	NO ADMITTANCE	A-B
West-104	NO LOAFING	H
West-105	NO OPEN LIGHTS	A
West-106	NO RIDERS	H
West-107	NO SMOKING	A-B-C-F-H
West-108	NO SMOKING, MATCHES, OR OPEN LIGHTS	A
West-109	NO TRESPASSING	A
West-110	OFFICE	C-D
West-111	OUT	C
West-112	POISON	A-F
West-113	PRIVATE	C
West-114	PULL SWITCH BEFORE LEAVING THIS MACHINE	A
West-115	RADIOACTIVE	F
West-116	REPORT ALL ACCIDENTS REGARDLESS OF HOW SMALL TO YOUR FOREMAN	C
West-117	RING BELL BEFORE LOWERING ELEVATOR	B
West-118	RING BELL BEFORE STARTING ELEVATOR	C
West-119	SAFETY BARRICADE IF YOU MUST REMOVE THIS BARRICADE BE SURE TO PUT IT BACK. YOUR COOPERATION ON SAFETY WILL HELP YOU AND YOUR FELLOW WORKER TO AVOID INJURY	B
West-120	SAFETY FIRST	E
West-121	SAFETY SHOWER FOR ACID BURNS	C
West-122	SAVE YOUR EYES WEAR GOGGLES	C
West-123	SPITTING ON THE FLOOR, IN CORNERS, OR OUT OF THE WAY PLACES IS UNSANITARY AND UNLAWFUL	B
West-124	SPRINKLER VALVE DO NOT CLOSE UNLESS AUTHORIZED	A-H
West-125	STAIRWAY	D
West-126	STOP	A
West-127	STOP THIS MACHINERY BEFORE OILING, WIPING, OR REPAIRING	A
West-128	THE LIFE YOU SAVE MAY BE YOUR OWN	E
West-129	THIS DOOR MUST BE KEPT CLOSED	B
West-130	THIS SPACE MUST BE KEPT CLEAR AT ALL TIMES	B
West-131	THIS WAY OUT	D
West-132	USE BRUSH TO REMOVE CHIPS	G
West-133	USE FUSE PULLER TO REMOVE FUSES	B-G
West-134	USE HAND RAIL	B
West-135	USE ONLY CARBON TET ON MOTOR FIRES	A
West-136	USE ON OIL FIRES ONLY	A
West-137	WALK — DON'T RUN	C
West-138	WASH YOUR HANDS BEFORE LEAVING THIS ROOM	C
West-139	WATCH STEPS — STAIRWAY	B
West-140	WATCH YOUR STEP	A
West-141	WEAR GOGGLES OR USE SHIELD	C
West-142	WEAR GOGGLES WHEN USING THIS MACHINE	A-B-F
West-143	WEAR YOUR GOGGLES	C
West-144	WEAR YOUR RESPIRATOR	B-C-G
West-145	WOMEN	C
West-146	WORKING ON MACHINE — DO NOT START	A
West-147	YOU ARE FORBIDDEN TO WORK HERE WITHOUT GOGGLES	B

Stock No.	Sign	Description
West-dan	DANGER	"DANGER" in white on a red oval background inside a black rectangle.
West-cau	CAUTION	"CAUTION" in yellow on a black background.
West-not	NOTICE	"NOTICE" in white on a blue background.
West-aro	⟵	A White arrow on a black background.

Stock No.	Description	Stock No.	Description
West-aro-R1	FIRE →	West-aro-L1	← FIRE
West-aro-R2	HOSE →	West-aro-L2	← HOSE
West-aro-R3	THIS WAY →	West-aro-L3	← THIS WAY
West-aro-R4	TO THE →	West-aro-L4	← TO THE
West-aro-R5	TO THE NEAREST →	West-aro-L5	← TO THE NEAREST

Safety Sign prices are the same as those shown for Tel-A-Pipes on Page 143.

E-Z-CODE MARKERS

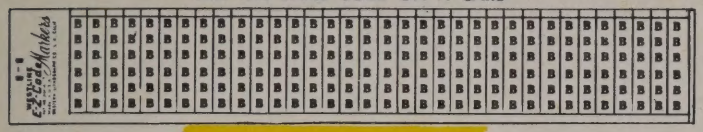
SAVE YOU TIME AND MONEY!

–THE MOST EFFECTIVE WIRE MARKER EVER DEVISED.

E-Z-CODE Markers; the simple way to mark wires, conduits, harnesses, parts, terminals and fuses!

SOLID CARDS LOOK LIKE THIS

ALL THE SAME CODE ON A CARD



SEQUENCE CARDS LOOK LIKE THIS

DIFFERENT CODES ALL ON THE SAME CARD

SOLID CARDS

CODE	No. of Markers per Card
0	34
1	34
2	34
3	34
4	34
5	34
6	34
7	34
8	34
9	34
10	34
11	34
12	34
13	34
14	34
15	34
16	34
17	34
18	34
19	34
20	34
21	34
22	34
23	34
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41	34
42	34
43	34
44	34
45	34
46	34
47	34
48	34
49	34
50	34
51	34
52	34
53	34
54	34
55	34
56	34
57	34
58	34
59	34
60	34
61	34
62	34
63	34
64	34
65	34
66	34

CODE	No. of Markers per Card
67	34
68	34
69	34
70	34
71	34
72	34
73	34
74	34
75	34
76	34
77	34
78	34
79	34
80	34
81	34
82	34
83	34
84	34
85	34
86	34
87	34
88	34
89	34
90	34
91	34
92	34
93	34
94	34
95	34
96	34
97	34
98	34
99	34
100	26
101	26
102	26
103	26
104	26
105	26
106	26
107	26
108	26
109	26
110	26
111	26
112	26
113	26
114	26
115	26

Etc. up to and including number 600

600	26

CODE	No. of Markers per Card
A	34
B	34
C	34
D	34
E	34
F	34
G	34
H	34
I	34
J	34
K	34
L	34
M	34
N	34
O	34
P	34
Q	34
R	34
S	34
T	34
U	34
V	34
W	34
X	34
Y	34
Z	34
a	34
b	34
c	34
d	34
e	34
f	34
g	34
h	34
i	34
j	34
k	34
l	34
m	34
n	34
o	34
p	34
q	34
r	34
s	34
t	34
u	34
v	34
w	34
x	34
y	34
z	34

CODE	No. of Markers per Card
A1	34
A2	34
A3	34
A4	34
A5	34
A6	34
B1	34
B2	34
B3	34
B4	34
B5	34
B6	34
C1	34
C2	34

CODE	No. of Markers per Card
C3	34
C4	34
C5	34
C6	34
C7	34
C8	34
C9	34
D1	34
D2	34
D3	34
D4	34
D5	34
D6	34
E1	34
E2	34
E3	34
E4	34
E5	34
E6	34
F1	34
F2	34
F3	34
F4	34
G1	34
G2	34
G3	34
G4	34
H1	34
H2	34
H3	34
H4	34
H5	34
H6	34
J1	34
J2	34
J3	34
J4	34
L1	34
L2	34
L3	34
L4	34
L5	34
L6	34
L7	34
L8	34
L9	34
L10	26
M1	34
M2	34
M3	34
M4	34
M5	34
M6	34
P1	34
P2	34
P3	34
P4	34
R1	34
R2	34
R3	34
R4	34
R5	34
R6	34
R7	34
R8	34
R9	34
R10	26

CODE	No. of Markers per Card
S1	34
S2	34
S3	34
S4	34
S5	34
S6	34
T0	34
T1	34
T2	34
T3	34
T4	34
T5	34
T6	34
T7	34
T8	34
T9	34
T10	26
U1	34
U2	34
V1	34
V2	34
V3	34
V4	34
W1	34
W2	34
X1	34
X2	34
X3	34
X4	34
Y1	34
Y2	34
Y3	34
Y4	34
Z1	34
Z2	34
Z3	34
Z4	34

CYCLES

25 CY	22	
35 CY	22	
40 CY	22	
50 CY	22	
60 CY	22	
400 CY	18	

VOLTAGES

2.5V	22
3V	34
3.8V	22
5V	34
6V	34
6.3V	22
7.5V	22
12V	26
24V	26
27V	26
32V	26
36V	26
48V	26
110V	22
115V	22
120V	22
125V	22
127V	22
180V	22
190V	22
208V	22

CODE	No. of Markers per Card
220V	22
230V	22
240V	22
250V	22
270V	22
280V	22
375V	22
380V	22
440V	22
460V	22
480V	22
500V	22
550V	22
575V	22
600V	22
880V	22
2200V	18
4400V	18

MISCELLANEOUS

CODE	No. of Markers per Card
AA	34
AC	34
AL1	26
AL2	26
AM	26
ANT	26
ARM	22
BAT	26
BB	34
BELL	22
BF1	26
BF2	26
BF3	26
BF4	26
BR1	26
BR2	26
BR3	26
BR4	26
BUS	26
CC	34
CCW	26
CLOSE	18
CM	26
COM	26
CT	34
CUR	26
CW	26
DC	34
DD	34
DR1	26
DR2	26
DR3	26
DR4	26
FA	34
FB	34
FF	34
FFA	26
FFB	26
FLD	26
FM	26
FMM	22
FS1	26
FS2	26
FS3	26
FWD	26
GEN	26
GND	26

CODE	No. of Markers per Card
GRD	26
HOT	26
IGN	26
IN	34
LINE	22
LOAD	22
MM	26
NEG	26
NEUT	22
OFF	26
ON	34
OPEN	22
OUT	26
PHASE	18
PHONE	18
POS	26
POT	26
PRI	26
REV	26
SEC	26
SIG	26
SPARE	18
SS	34
TRIP	22
+	34
−	34
±	34
~	36
≙	36
→	33
←	33
↑	33
↓	33

SOLID COLORS

Black	34
Blue	34
Brown	34
Green	34
Grey	34
Orange	34
Red	34
White	34
Yellow	34

PHASE CARDS

White Background

Phase 1	12
Phase 2	12
Phase 3	12

Colored Backgrounds

A PHASE

Blue	12
Red	12
Yellow	12

B PHASE

Blue	12
Red	12
Yellow	12

C PHASE

Blue	12
Red	12
Yellow	12

E-Z-Code Markers are "Packaged" on stiff cardboard backing cards so that they may be inventoried and carried in a workman's pocket or kit easily. Each card has up to 36 individual markers depending upon the number of characters in the code. Stock Markers are 1½" long.

FOR SMALL GAGE WIRES

All stock E-Z-Codes are available in ¾" length for small diameter wires. Just ask for "¾" long markers."

IN STOCK

Immediate Delivery on over 1500 Codes

SEQUENCE CARDS

CODE	MARKERS OF EACH CODE PER CARD
1 thru 33	(1 of Ea.)
34 thru 66	(1 of Ea.)
67 thru 99	(1 of Ea.)
100 thru 124	(1 of Ea.)
125 thru 149	(1 of Ea.)
150 thru 174	(1 of Ea.)
175 thru 199	(1 of Ea.)
200 thru 224	(1 of Ea.)
225 thru 249	(1 of Ea.)
250 thru 274	(1 of Ea.)
275 thru 299	(1 of Ea.)
300 thru 324	(1 of Ea.)
325 thru 349	(1 of Ea.)
350 thru 374	(1 of Ea.)
375 thru 399	(1 of Ea.)
400 thru 424	(1 of Ea.)
425 thru 449	(1 of Ea.)
450 thru 474	(1 of Ea.)
475 thru 499	(1 of Ea.)
500 thru 524	(1 of Ea.)
525 thru 549	(1 of Ea.)
550 thru 574	(1 of Ea.)
575 thru 599	(1 of Ea.)
600 thru 624	(1 of Ea.)
625 thru 649	(1 of Ea.)
650 thru 674	(1 of Ea.)
675 thru 699	(1 of Ea.)
700 thru 724	(1 of Ea.)
725 thru 749	(1 of Ea.)
750 thru 774	(1 of Ea.)
775 thru 799	(1 of Ea.)
800 thru 824	(1 of Ea.)
825 thru 849	(1 of Ea.)
850 thru 874	(1 of Ea.)
875 thru 899	(1 of Ea.)
900 thru 924	(1 of Ea.)

CODE	MARKERS OF EACH CODE PER CARD
925 thru 949	(1 of Ea.)
950 thru 974	(1 of Ea.)
975 thru 999	(1 of Ea.)
1000 thru 1024	(1 of Ea.)
1025 thru 1049	(1 of Ea.)
1050 thru 1074	(1 of Ea.)
1075 thru 1099	(1 of Ea.)
1100 thru 1124	(1 of Ea.)
available up to:	
1975 thru 1999	(1 of Ea.)
0 thru 10	(3 of Ea.)
1 thru 3	(12 of Ea.)
1 thru 4	(9 of Ea.)
1 thru 5	(7 of Ea.)
1 thru 6	(6 of Ea.)
1 thru 8	(4 of Ea.)
1 thru 9	(4 of Ea.)
1 thru 10	(3 of Ea.)
1 thru 12	(3 of Ea.)
1 thru 16	(2 of Ea.)
1 thru 18	(2 of Ea.)
19 thru 36	(2 of Ea.)
A thru Z	(plus A thru H)
a thru z	(plus a thru h)
A thru G	(5 of Ea.)
A thru E	(7 of Ea.)
F thru J	(7 of Ea.)
K thru O	(7 of Ea.)
P thru T	(7 of Ea.)
U thru Z	(6 of Ea.)
A+A−	(13 of Ea.)
B+B−	(13 of Ea.)
C+C−	(13 of Ea.)
A1 thru A4	(8 of Ea.)
B1 thru B4	(8 of Ea.)
C1 thru C4	(8 of Ea.)

CODE	MARKERS OF EACH CODE PER CARD
C1 thru C26	(1 of Ea.)
D1 thru D4	(8 of Ea.)
E1 thru E4	(8 of Ea.)
F1 thru F4	(8 of Ea.)
G1 thru G4	(8 of Ea.)
H1 thru H4	(8 of Ea.)
H1 thru H9	(4 of Ea.)
I1 thru I4	(8 of Ea.)
J1 thru J4	(8 of Ea.)
J1 thru J9	(4 of Ea.)
K1 thru K4	(8 of Ea.)
L1 thru L4	(8 of Ea.)
L1 thru L26	(1 of Ea.)
M1 thru M4	(8 of Ea.)
M1 thru M6	(6 of Ea.)
N1 thru N4	(8 of Ea.)
O1 thru O4	(8 of Ea.)
P1 thru P4	(8 of Ea.)
Q1 thru Q4	(8 of Ea.)
R1 thru R4	(8 of Ea.)
R1 thru R26	(1 of Ea.)
S1 thru S4	(8 of Ea.)
S1 thru S26	(1 of Ea.)
T1 thru T4	(8 of Ea.)
T1 thru T9	(4 of Ea.)
T10 thru T17	(3 of Ea.)
T1 thru T26	(1 of Ea.)
U1 thru U4	(8 of Ea.)
V1 thru V4	(8 of Ea.)
W1 thru W4	(8 of Ea.)
X1 thru X4	(8 of Ea.)
X1 thru X26	(1 of Ea.)
Y1 thru Y4	(8 of Ea.)
Z1 thru Z4	(8 of Ea.)
D. C. Motor & Gen (F1, F2, A1, A2, S1, S2)	(6 of Ea.)

PRICE LIST–STOCK E-Z-CODE WIRE MARKER CARDS

20 to 49 cards—15c per card
50 to 99 cards—13c per card
100 to 249 cards—11½c per card
250 to 499 cards—10c per card
500 to 900 cards— 9¾c per card
1000 to 2499 cards— 9½c per card
2500 cards and over—QUOTATION

MINIMUM ORDER 20 cards assorted. Stock items may be grouped and take the price for the total quantity ordered.

SPECIAL CODES

E-Z-CODE Markers can also be made on special order. E-Z-CODES are available in almost any width or length required. They can be printed with any wording and any color.

PRICE LIST–SPECIAL E-Z-CODE WIRE MARKER CARDS

50 to 99 cards—20c per card
100 to 249 cards—13c per card
250 to 499 cards—11¼c per card
500 to 999 cards—10¾c per card
1000 to 2499 cards—10½c per card
2500 cards and over—QUOTATION

MINIMUM ORDER 50 cards of any one item. Special cards may not be grouped for quantity price—each item is priced separately for the quantity ordered. Above prices are for black ink on white or colored backgrounds. If code is printed in a color other than black a $1.50 wash-up charge is made. If code is set from standard type face no additional charge is made. When art work and cuts are required they are charged for at cost. The above prices are for a printing area of 1½" x 9"—for other sizes quotation will be furnished.

SUN RADIO & ELECTRONICS CO., INC. • 650 SIXTH AVE. • NEW YORK 11, N. Y. • ORegon 5-8600

NO.
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Sun Radio & ELECTRONICS CO., INC. • 650 SIXTH AVE. • NEW YORK 11, N. Y. • ORegon 5-8600